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Air Force Logistics Management Agency

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contractors on the battlefield

Introduction

If contractors leave their jobs during a crisis or hostile situation, the readiness of vital defense systems and the ability of the Armed Forces to perform their assigned missions would be jeopardized.

—DoD Inspector General, 1991

During the last decade, the only constant in the military landscape has been change:

- The Secretary of Defense-directed sweeping program to reform the *business of the Department of Defense*.
- Defense reform initiatives that mandated use of business practices by American industry to become leaner and more competitive.
- A new National Military Strategy.
- *Joint Vision 2010* and Global Engagement (the Air Force response to *Joint Vision 2010*).
- Focused Logistics and Agile Combat Support (the Air Force portion of Focused Logistics).
- Increased use of contractor personnel and outsourcing and privatization.

A dominant element within all of this change has been increased use of contractors and contractor support. From now and into the foreseeable future, when the US military deploys—whether crisis response, peacekeeping, nation building, or warfare—contractors will deploy with them.[1] Civilian contractors have accompanied and supported troops in the field throughout much of history. What makes it significant is the level of support, location, and criticality of the support they now provide.[2] Today, contractors are providing virtually all of the logistics support for some new weapon systems, maintaining fielded weapon systems, providing much of the logistics support for entire operations, directly supporting commanders in the field, and operating information and intelligence systems. Never before has tactical success relied so heavily on nonmilitary personnel.[3] Never before has the distinction between civilian and soldier been so blurred.[4] Because of this, the military is facing a fundamental change in the way it conducts and supports warfare.

Contractor Support: A Brief History

The use of civilian contractors for support within the US military is not a new phenomenon. Prior to World War II, support from the private sector was common. It was not until the Cold War that government support became standard.

> Lest you think this is a new phenomenon, let me take you back to the era before World War II when private support was standard. It was only during the Cold War when we realized the huge buildup of government operations that we came to think of government support as the norm.[5]

The philosophy regarding the use of civilians in noncombat roles remained relatively unchanged from the period of time encompassing the Revolutionary War and the War of 1812 through the Vietnam conflict. Their primary role was logistics support; for example, transportation, provisioning, engineering, communications, and medical services.[6] In general, it was believed the use of civilians in support areas would allow soldiers to focus on military or warfighting responsibilities. This made sense because most logistical tasks were specialized functions available from commercial sources.[7]

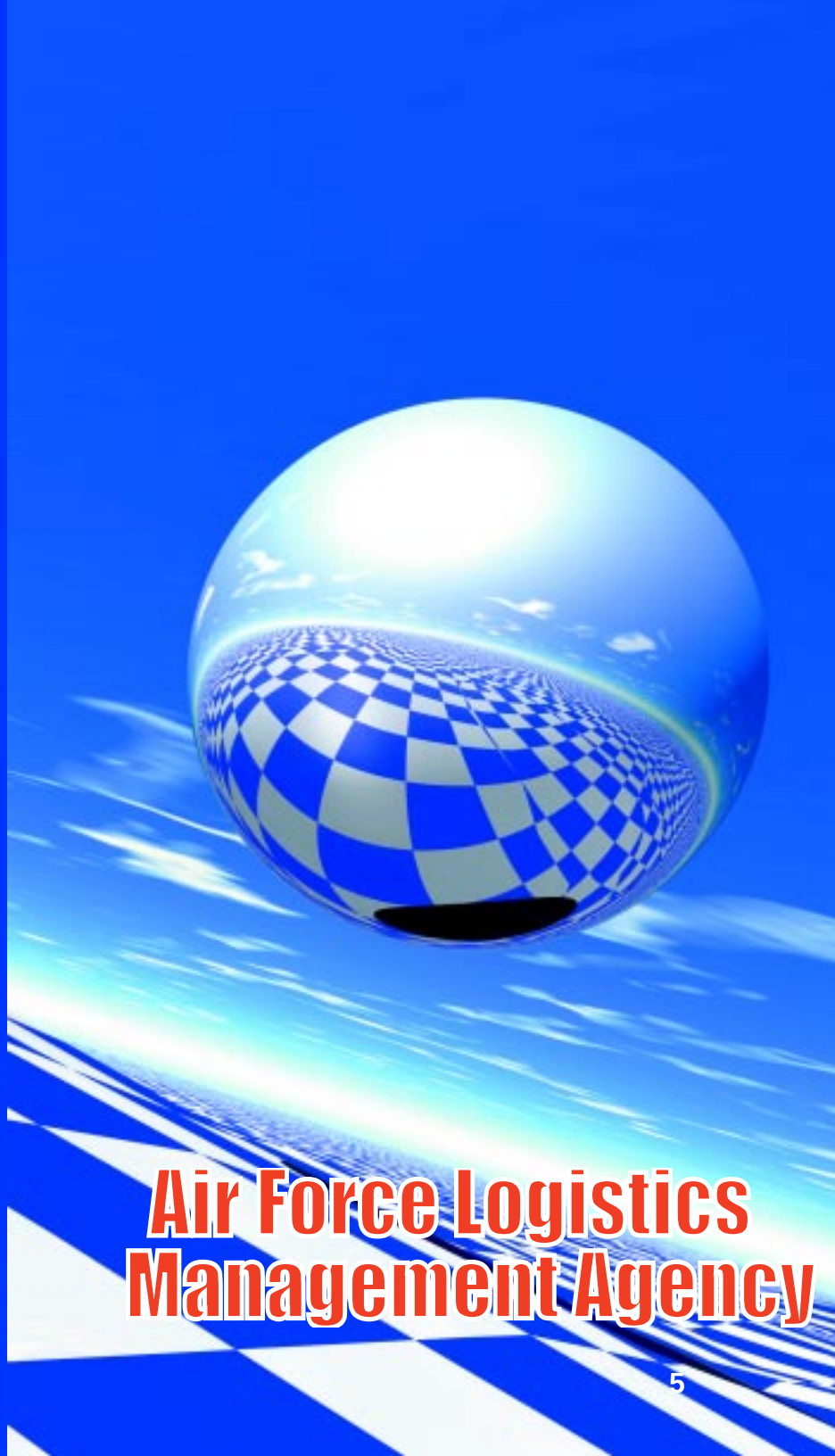
With the Vietnam conflict, the role of the contractor began to change.[8] They performed some of the same tasks as—and worked side by side with—deployed soldiers. No longer relegated to just basic support tasks, they were in fact technical specialists—experts in the tools of war. A major reason for this was the increasing complexity of military equipment and hardware.[9] Since then, the trend has been for an increasing number of contractors to support both logistics and combat operations. During the war in the Gulf, 1 in 50 of those deployed was a civilian contractor. For operations in the Balkans, it was 1 in 10.[10] It is expected that this ratio will shrink even further as more and more activities or functions are outsourced or privatized.

Three factors have been responsible for the increased use of contractors:[11]

- Downsizing of the military following the Gulf War.
- A growing reliance on contractors to support high-tech weaponry and provide initial or lifetime support for weapon systems.
- A push to outsource or privatize functions to improve efficiency and accrue funds for sustainment and modernization programs.

The argument can also be made there is a fourth reason—relief from troop ceiling restrictions. Following the end of the Cold War, approximately 1 million persons (military and civilian) were eliminated DoD-wide.[12] At the same time, all the Services have seen an increase in operating tempos. This has necessitated increased use of contractor personnel to perform jobs previously held by military personnel. From a DoD-wide perspective, in many cases, these skills are more closely related to operations than the historical logistics or support focus.

The continued and rapid expansion of technology and sophisticated high-tech weaponry has made it uneconomical to keep military personnel capable of maintaining and, in some cases, operating sophisticated equipment.[13] For similar reasons, there has been a move to rely on contractor support during the initial fielding of a weapon system. In the past, DoD policy was to transition from initial contractor support as soon as possible in order to eliminate potential overreliance



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on civilian technical support. However, today, the policy is completely reversed. Congressional language now requires that contractors maintain and support new critical weapon systems for at least 4 years and for life for noncritical systems.

Personnel reductions and budget imperatives have been driving factors in the move to outsource or privatize many functions and activities.

Outsourcing and Privatization

Outsourcing and privatization (competitive sourcing and privatization within the Air Force) is the *transfer of a support function traditionally performed by an in-house organization to an outside service provider, with the government continuing to provide appropriate oversight.*[14] The Defense Science Board defines *privatization* as "involving not only the contracting out of support functions, but also the transfer of facilities, equipment, and other government assets to the private vendor."[15]

The intent of outsourcing and privatization within the DoD is to lower costs and improve performance, while improving readiness, generating savings for modernization, and improving the quality and efficiency of warfighter support.[16] Savings are expected to accrue over time despite the initial short-term costs associated with changing from a military or civilian work force to a contracted work force. In addition to the cost savings, it is expected that the competitive process will allow the military to identify the most efficient way to deliver support services. By identifying alternative and innovative support approaches, military personnel can focus on core missions. Within the Air Force, the number one goal of competitive sourcing and privatization is to sustain readiness. This is followed by improving performance, quality, efficiency, and cost-effectiveness; generating savings for modernization; and focusing personnel and resources on core activities.[17]

The full impact of outsourcing and privatization efforts is still emerging. However, there are some significant points to consider. There have been impediments to outsourcing within the military environment as a whole. The Defense Science Board defined the primary impediment as the "resistance of the DoD culture to fundamental change."[18] Further, the board attributed the military's hostility to privatization to its readiness, rather than efficiency orientation.[19]

In the past, there was a fairly clear distinction between core and noncore functions. A core capability was defined as:

> A commercial activity operated by a cadre of highly skilled employees in a specialized, technical, or scientific development area. The core capability does not include skills or functions that may be retained in-house for reasons of national defense, including military mobilization, security, rotational necessity, patient care, or research and development.[20]

Today, the focus has shifted from functions to more broadly defined competencies. In effect, this expands the potential list of candidates for outsourcing or privatization. For the long-term, it has the potential to eliminate whole areas of organic capability.

Outsourcing and privatization initiatives are not standardized among the Services or even within each Service. The DoD experience with outsourcing and privatization seems to confirm that savings are substantial when comparing organic to contract support. It is estimated the Air Force has saved $500M per year with its competitive sourcing and privatization initiative. At the DoD level, estimates are that savings will be $7B to $12B by FY02.[21] However, for a variety of reasons, there has been some difficulty substantiating the actual level of savings. Regardless, there is little question regarding the viability of the program and its continuance within the DoD. Existing fiscal demands and budgetary imperatives offer few alternatives.

The success of outsourcing within the civilian sector is far less ambiguous—competitive forces can and do generate cost savings and improve performance. A wide variety of America's most successful companies have seen dramatic benefits through outsourcing and the associated competition.[23]

On the positive side, the move to outsource and privatize is driving changes in military relationships with vendors and contractors. The old mental image of the contractor being an outsider who must be told not only what to do but also how to do it has changed. The environment of today requires that military organizations actively partner with supporting contractors. This partnering means developing a relationship in which both sides share risks, savings, and rewards. In this context, partnering will run from the beginning of the solicitation through the life of the contract. One of the significant positive outcomes of partnering efforts has been the elimination of the *low bid* mentality. Past performance is now a major determinant in the awarding of contracts.

Contractors on the Battlefield is a collection of seven articles or essays that lets the reader look broadly at many of the initiatives involved with and the issues surrounding the increasing role of contractor support for the US military The collection begins with an award-winning essay by Colonel Steven J. Zamparelli, "Contractors on the Battlefield—What Have We Signed Up For?" Colonel Zamparelli, following a brief review of the evolution of competitive sourcing and privatization, looks at a number of major issues concerning the increased use of contractor personnel. These range from support of high-technology weapon systems to contractor security. In the process, he examines contractor responsibilities, noncombatant status, and contractor discipline and control. His conclusions concerning the increasing role of contractors are particularly salient.

The next article is "Focused Logistics 2010—A Civil Sector Force Multiplier for the Operational Commander," by Colonel Joseph B. Michels. Colonel Michels examines the question: Will Focused Logistics, as envisioned by *Joint Vision 2010*, provide the robust wartime logistics support required by the

operational commander? In the course of his analysis, several issues come to light: the resistance of the conservative DoD/military culture to change; the degree of technological dependency envisioned by *JV 2010*; and major contractor, competitive sourcing, and privatization issues.

The third selection is "The Political Economy of Privatization for the American Military" by Colonel R. Philip Deavel. In this award-winning essay, Colonel Deavel captures the tough outsourcing and privatization issues from the economist viewpoint. His comparison of successful privatization initiatives in the United Kingdom with those of the DoD are particularly notable. The points he makes regarding couching outsourcing and privatization in purely economic terms without consideration of the cultural framework in which it is being implemented explains many of the difficulties seen within the DoD. Finally, his thoughts concerning how outsourcing and privatization initiatives have altered the idea of service before self is a must read section.

In "Are We Ready to Fight and Win the Next War?" Lieutenant Colonel Duncan H. Showers encapsulates many of the major support issues facing the military today. He highlights some of the psychological impacts associated with downsizing, describes the key issues associated with vertical integration in the defense industry, and concludes with several major examples of failed contractor performance.

In the award-winning article, "Competitive Sourcing and Privatization: An Essential USAF Strategy," Lieutenant Colonel Stephen E. Newbold frames the need for outsourcing and privatization. He then outlines the major challenges the Air Force faces in implementing competitive sourcing and privatization and presents a series of recommendations to resolve key issues and make its implementation more effective. He suggests that a more measured competitive sourcing and privatization approach based on a well-conceived strategy is appropriate.

Major Susan A. Davidson in "Where is the Battle Line for Supply Contractors?" looks at the role of the contractor in delivering supplies to the US Army. This includes the current peacetime process, the contractor on the battlefield, general battlefield logistics, and the role of the contractor in future Army operations.

The concluding article is "A Joint Engineering and Logistics Contract," by Majors Maria J. Dowling and Vincent J. Feck. Dowling and Feck argue that a Joint Civilian Augmentation Program contract will eliminate individual Service program redundancies and provide efficiencies in the areas of personnel and program costs.

Notes

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2. *Ibid*.
3. *Ibid*.
4. *Ibid*.
5. Sheila E. Widnall, Secretary of the Air Force, "Privatization—A Challenge of the Future," Remarks at the Base and Civic Leader Dinner, McClellan AFB, California, 7 February 1996.
6. Maj William E. Epley, "Contracting in War: Civilian Combat Support of Fielded Armies," Washington DC: US Army Center of Military History, 1989, 1-6.
7. *Ibid*.
8. Kathryn McIntire Peters, "Civilians at War," *Government Executive*, July 1996.
9. Zamparelli, 10.
10. Peters, 24.
11. *Ibid*.
12. Zamparelli, 11.
13. Zamparelli, 12
14. "Outsourcing and Privatization," Defense Science Board Task Force, Office of the Under Secretary of Defense for Acquisition and Technology, August 1996, 7A.
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16. "Improving the Combat Edge Through Outsourcing," *Defense Viewpoint*, Vol. 11, No. 30 [Online] Available 21 February 1999: http://www.defenselin.mil/speeches/1996/s19960301-report.html.
17. Michael E. Ryan, "Notice to Airmen," No. 1, Washington DC: Chief of Staff, United States Air Force, Pentagon, 1999.
18. Col R. Philip Deavel, "The Political Economy of Privatization for the American Military," from *Sourcing the Competitive Edge*, ed., Lt Col James C. Rainey and Capt Jonathan L. Wright, Maxwell AFB, Alabama: Air Force Logistics Management Agency, 1998, 3.
19. *Ibid*.
20. *Federal Acquisition Regulation Part 7*, Acquisition Planning, General Services Administration, Department of Defense and the National Aeronautics and Space Administration, Washington DC: Government Printing Office, June 1977, 7-7.
21. Department of Defense, Office of the Under Secretary of Defense for Acquisition and Technology, Report to the Defense Science Board Task Force on CS&P, Washington DC, April 1997, 1A.
22. Eric M. Hodges, Lt Col, USAF, "Pitfalls and Pathways in Outsourcing," from *Sourcing the Competitive Edge*, ed. Lt Col James C. Rainey and Capt Jonathan L. Wright, Maxwell AFB, Alabama: Air Force Logistics Management Agency, 1998, 22.
23. "Improving the Combat Edge Through Outsourcing."
24. Hodges, 23.

what have we signed up for?

Colonel Steven J. Zamparelli

competitive sourcing and privatization

contractors on the battlefield

"When war broke out on the morning of Jan 17th as United States and allied aircraft bombed Iraq and Kuwait, the US contractors did not leave Saudi Arabia; some industry personnel even remained on the front lines with US troops."[1] From now into the foreseeable future, when the US military deploys for combat, peacekeeping, or peacemaking efforts, Department of Defense (DoD) contractor personnel—significant numbers of them—will deploy with the military forces. This is not such a startling revelation since civilian contractors have accompanied troops to war throughout history. No, what makes this issue worthy of research is not the fact that contractors are supporting these operations but the scope, location, and criticality of that support. Nonmilitary members are maintaining fielded weapon systems, supporting field operations, and managing and operating information and intelligence systems. "Contractors and civilians have been participating in military operations since Vietnam [or earlier], but never at current levels."[2] Senior Army logisticians interviewed by the Logistics Management Institute (LMI) for a post-Desert Storm report were almost unanimous in their belief contractors played a vital role on the battlefield, especially in supporting high-tech weapon systems.[3] According to the DoD Inspector General (IG) in a June 1991 audit: "If contractors leave their jobs during a crisis or hostile situation, the readiness of vital defense systems and the ability of the Armed Forces to perform their assigned missions would be jeopardized."[4]

That finding was more than 7 years ago when there were some 1 million more persons on the DoD roles.[5] Never has there been such a reliance on nonmilitary members to accomplish tasks directly affecting the tactical success of an engagement. This has blurred the distinction between soldier and civilian. This blurring is evident in the following passage from *Air Force Core Values*, regarding why we have core values:

> The first reason is that Core Values tell us the price of admission to the Air Force itself. Air Force personnel—whether officer, enlisted, civil servant or contractor—must display honesty, courage, responsibility, openness, self-respect and humility in the face of the mission.[6]

Air Force personnel? Price of admission to the Air Force? Contractor personnel may have all of these virtues, but they are not Air Force personnel! Their contract is their admission ticket, not an oath. Contractors are not DoD employees, no matter how much the Services wish it to be so. This fact and our cultural differences cannot be simply ignored through inclusion. On the other hand, this new reliance on in-theater contractor support is reality and cannot be disregarded.

In a postwar article entitled "Desert Storm and Future Logistics Challenges," former Army Chief of Staff General Carl Vuono did not even mention the role of contractors in the war or, more importantly, a logistics challenge of the future.[7] The military is facing a fundamental change in the way it conducts warfare, and there is little evidence that the players have been adequately prepared for that change. Both commanders and contractors need to understand the legal and operational implications stemming from or escalated by the increasing operational role of DoD contractors. The point is not to cast doubt about the patriotism or the loyalty of DoD contractor personnel—they have done the job when called. Rather, we must recognize and plan to accommodate the important differences in roles and responsibilities. If we do not, we will create significant operational and legal challenges for the field commanders, as well as for the

civilian operators. After providing some background on civilians in the combat environment, this article focuses on the following critical issues: the contractors' responsibilities, command and control or the commander's authority to discipline and direct, and the contractor personnel's combatant versus noncombatant status and implications and their effect on force protection requirements.

Background

Throughout the history of warfare, civilians have traveled with armies and accomplished those functions now called logistical support.[8] The State's employment of these civilians in this capacity has been recognized in the laws of armed conflict as defined by the Laws of the Hague in 1907 and the Articles and Protocols of the Geneva Conventions, last held in 1949. Civilian support to armies was accepted based upon a universal perspective that noncombatants could accomplish support tasks as long as those tasks kept them out of direct confrontation with the enemy. This would allow the soldiers to handle the business of warfighting and allow the private sector to do what it does best. Today, we unquestionably accept that the use of civilian support remains legal yet the requirements of warfare have dramatically changed the scope and relevance of the support tasks they provide, thus making their distinction as noncombatants less obvious.

US History

As far back as General Washington's Continental Army, civilians were employed to drive wagons, provide architect/engineering and carpentry services, obtain foodstuffs (when not foraged), and provide medical services.[9] The Continental Congress believed civilians should accomplish these tasks so that the soldiers could be free to be with their units and focus on warfighting responsibilities.[10] It made sense to use civilians to accomplish these logistical tasks because they were considered either too menial for soldiers or were well established or specialized functions in commercial industry.[11] This philosophy and thus the use of civilians in noncombat roles remained relatively unchanged from the War of 1812 up through the Vietnam War. In each of those conflicts, significant numbers of civilians continued to accomplish basic logistics requirements in support of the soldiers, as shown in Table 1.

The use of civilians in wartime was not, however, without problems. During the Revolutionary War, for example, a regiment of artificers was raised to work with civilian artificers supporting construction and ordnance requirements. A special report to Congress on the state of this regiment emphasized the disgruntled comments of the military members contrasting their wages with those paid to the civilians.[12] "It was difficult to persuade men to reenlist after the expiration of their three-year terms."[13] Sound familiar? Additionally, there was often a question of these contractors' commitment and responsibility. During the Civil War:

War/Conflict	Civilians	Military	Ratio
Revolution	1,500 (est)	9,000	1:6 (est)
Mexican/American	6,000 (est)	33,000	1:6 (est)
Civil War	200,000	1,000,000	1:5 (est)
World War I	85,000	2,000,000	1:2.0
World War II	734,000	5,400,000	1:7.0
Korean Conflict	156,000	393,000	1:2.5
Vietnam Conflict	70,000	359,000	1:6.0

> . . . draft exemptions were sought for teamsters to encourage them to drive wagons to western posts; however, teamsters were not only difficult to find, they proved to be recalcitrant employees, so toward the end of the war, the tendency was to replace civilian drivers with soldiers who could not resign or swear back with impunity.[14]

The key point is that when problems with contractor support did arise commanders could turn the task over to military personnel who had at least some basic skills. Additionally, the general policy of the military related to employing contractors was "the closer the function came to the sound of battle, the greater the need to have soldiers perform the function because of the greater need for discipline and control."[15]

With the Vietnam War, the employment of civilians began to change. *Business Week* called Vietnam a war by contract.[16] "More than ever before in any US conflict, American companies are working side by side with the troops. One big reason is that military equipment has become so complex."[17] "Specialists in field maintenance checking on performance of battlefield equipment, have dodged Vietcong attacks on military bases at Da Nang and Pleiku."[18] No longer were contractors away from the sound of battle. No longer were they relegated to basic logistics tasks. They were becoming specialists in the tools of war. "There might have been a time in the past when the site of military operations was an exclusive club for those in uniform, but those days are waning."[19]

> When US troops set foot on Saudi Arabian sand, many defense industry contractors were close behind. The contractors followed the military to make sure that their multimillion dollar weapon systems functioned properly in the harsh desert environment.[20]

The trend is for an increasing number of civilian operators in theater to support logistics and, more importantly, combat operations. "One in 10 Americans deployed for NATO peacekeeping operations in Bosnia is a civilian. By contrast, 1 in 50 Americans deployed for the Persian Gulf war was a civilian."[21] (Note that these figures are for contractors deploying with the troops

and should not be compared with the figures in Table 1.) That ratio will continue to shrink as more functions are being turned over to the private sector through competitive sourcing, privatization, and changing logistics practices such as lifetime contractor logistics support.

Why Has This Happened?

Three factors have contributed to this trend: deep cuts in uniformed personnel, a push to privatize functions that can be done outside the military, and a growing reliance on contractors to maintain increasingly sophisticated weapon systems.[22]

Actually, there is a fourth reason for the deployment of contractors into the battlefield: to provide flexibility in the face of congressional, executive branch, or host-country-mandated troop ceilings.[23] For example, at the height of the Vietnam War, there were more than 80,000 contractor persons supporting the war effort who did not count against troop ceilings set by President Johnson. Similarly, in Bosnia, the US military has been able to get more *tooth* (soldiers) in theater by having more than 2,000 contractor persons in forward locations above the congressional limit of 20,000 US troops. However, while there is certainly a benefit to the Department of Defense stemming from an increased reliance on contractors, whether this is a cause of the increased contractor participation or simply the result is open to argument.

Manpower Reduction

"Since the end of the Cold War, the Department of Defense has cut more than 700,000 active duty troops from the ranks."[24] Additionally, more than 300,000 DoD civilian positions have been eliminated. These cuts have occurred without a commensurate reduction in operational requirements. In fact, all of the Services have experienced a significant increase in operating tempos over the last 10 years while operating with about one-third fewer forces. The Air Force, for example, has an average of 12,000 airmen deployed on any given day. Ten years ago that average was around 2,000.[25]

> The Army has had a 300 percent increase in mission commitments during the past several years, and they do not appear to be tapering off. During the same period, the Army has reduced the US Army Materiel Command's (AMC) military strength by 60 percent and reduced the number of AMC depots by 50 percent.[26]

Out of necessity, there has been a growing recognition that more of the jobs previously accomplished by military members must be accomplished by civilians. This move to a greater reliance on nonmilitary support is recognized by all the Services. In the Air Force, it is articulated in *Global Engagement: A Vision of the 21st Century Air Force*. "The force will be smaller. Nonoperational support functions will increasingly be performed by Air Force civilians or contractors."[27] Two parts of this excerpt need to be scrutinized.

First, the reference to increased participation by Air Force civilians must be looked at with skepticism. While historically a significant portion of the competencies cut from the active duty forces were passed on to the Department of Defense, that is no longer possible. As discussed above, they, like the active forces, have faced significant cuts since the Gulf War. Those cuts continue. According to Deputy Secretary of Defense John Hamre, 237,000 DoD employees will participate in public-private competitions from 1997 to 2003.[28] Only a year earlier, the *Air Force Times* reported that Service planners were considering giving private contractors more than 160,000 jobs performed by service members and DoD civilians.[29] Additionally, Global Engagement's statement regarding nonoperational support functions is suspect. As cuts to the military forces and budgets continue, the skills being reduced or eliminated are becoming more related to operations, as opposed to their historical base support focus. During Desert Shield and Desert Storm, for example, contractors had maintenance teams supporting Army tracked and wheeled vehicles (anything from 2-1/2-ton trucks to 65-ton M1A1 tanks); the Fox nuclear, biological, and chemical vehicles; and TOW and Patriot missiles.[30] The Air Force had contractors flying in support of the Joint Surveillance, Target Attack Radar System (JSTARS), as well as performing in-theater organizational maintenance. During Operation Just Cause, a total of 82 contractors were in Panama to support aviation assets.[31] These certainly appear to be operational activities. They may even be considered combat operations. Nonoperational is defined in terms of what is privatized rather than by whether the function is core to warfighting.

Privatization and Contracting Out

While declining manpower is placing more operational jobs directly in the hands of the private sector, the budget and manpower reduction is also forcing the Department of Defense to look at demilitarizing large areas of core functions through privatization or contracting out. In the past, core functions were defined as those requiring a military or organic capability because it was combatant in nature, required potential deployment into harms way, or required the capability to be expanded (surged) in times of crisis. They were specific skills, maintenance and munitions handling, for example. Today, there has been a move away from functions toward a focus on more broadly defined core competencies. For example, the Air Force identifies its core competencies as Air and Space Superiority, Precision Engagement, Information Superiority, Global Attack, Rapid Global Mobility, and Agile Combat Support.[32] Thus, functions previously felt to be sacrosanct are now candidates for transition to contractors. The largest of these function being rapidly transitioned is maintenance, most significantly, depot maintenance. Less than 10 years ago, maintenance was considered to be a core logistics function. For years, the Pentagon has been after Congress to repeal the law requiring that government employees accomplish 60 percent of depot weapon system maintenance. They have recently succeeded in reducing that to 50 percent and are not through yet.[33] By 2003, almost 40 percent of DoD

maintenance depots and 55 percent of the depot work force will have been eliminated.[34]

Another core function facing either privatization or contracting out is information and communications—the functions supporting Information Superiority. Information Superiority, which includes information warfare, is identified as a core function in Global Engagement and emphasized in *Joint Vision 2010*. Yet, the Air Force has plans to reduce the communication-computer occupational field by 24 percent within the next 5 years.[35] There are many other examples. Where noncommissioned officers used to test and calibrate weapons, civilian technicians are now doing the work.[36] The Aerospace Guidance and Metrology Center—once the military facility responsible for the maintenance, repair, and calibration of missile guidance systems and Air Force measurement standards—is now completely a contractor operation. New initiatives under consideration include contracting out all software maintenance on the B-2 bomber and the total maintenance effort for the F-117 fighter. The Air Force is also studying the possibility of outsourcing all of its precision measurement equipment laboratories. If implemented, the Services will eventually be devoid of the organic capability to support these systems and missions. In time of war, they will be completely dependent on contractors to provide whatever support needed whenever it is needed. Commanders need to ensure the contract supporting them accurately reflects and supports peacetime and wartime requirements.

Competitive sourcing and privatization among the Services or even within each Service is not being accomplished in a standardized manner. In the Air Force wing or center, commanders are strongly encouraged to contract out base support functions. However, a standard has not been set for outsourcing functions identified by higher headquarters. Some wings, for example, have turned the majority of their civil engineering functions over to contractors, while others have not. As the Air Force moves into the Air Expeditionary Force (AEF) structure, concern is growing over the lack of organic engineering skills at some locations.[37]

Two related outcomes of privatization are further reducing the availability of skilled DoD technicians. First, for those military members in a career field that is being privatized, there are fewer places they can be stationed. Often, the only place they can go is overseas or to a continental United States (CONUS) base that has significant deployment responsibilities, reducing quality of life and retention. Second, privatization provides civilian job opportunities for skilled military members. "When a military repairman achieves journeyman status, he can easily be wooed to leave the Service and accept private employment at higher pay. Often these journeymen then work for contractors who support the military."[38] On the other hand, in the long term, industry is losing a primary source of trained and uniquely skilled labor for the military systems it is now supporting. This most certainly will increase future contractor costs.

Support of High-Technology Weapon Systems

This situation is further exacerbated by reliance on cutting-edge weapon systems technology. The Army's logistics after action report from Operation Desert Storm said, "There is a role for contractors on the battlefield, particularly when the tasks are so complex that it is not economically beneficial for the Army to maintain needed capability within the force."[39] Continual and rapid technological change has made it uneconomical to keep soldiers technologically capable of maintaining, troubleshooting, and in some cases, employing sophisticated weapons. This is driving the military to rely on contractor support, at least during the initial fielding phase of a system and possibly for its life (C-17 contractor logistics support). In the not too distant past, it was DoD policy that the Services establish organic support for the logistical sustainment of new weapon systems as soon as possible after fielding. DoD Directive 1130.2, *Management and Control of Engineering and Technical Services*, required the military to achieve self-sufficiency in maintaining and operating new systems as early as possible and limited the use of contractor field service to 12 months thereafter.[40]

The purpose of this directive was to ensure the Services did not come to rely too heavily on the use of civilian technicians to support their systems.[41] Today, that directive is gone, and the general philosophy has completely reversed. Congressional language now requires that maintenance and repair for all new critical weapon systems be under contractor support for at least 4 years and for life for noncritical systems.[42] Once again, in the future when US forces deploy, there will be many situations where a contractor employee is the only person with the technical skill to perform functions necessary for the employment of a weapon system.

Downsizing has made it a necessity that contractor personnel go to the front lines to support their weapon systems and perform functions the same as military members. We have, in effect, stopped trying to keep an organic ability, thus creating a hybrid—not a military—member, but not quite the historical civilian who accompanies the troops. The ramifications could be significant to fighting and winning.

Issues

The challenges or issues generated from increased reliance on contractors to perform combat support functions are not new to the Department of Defense or the Services. As far back as 1980, there have been several studies, audits, and articles highlighting the Services' increased reliance on contractors, along with warnings of the risk that accompanies that reliance during crisis or hostile situations.

Contractor Responsibility

The greatest risk, at least from a field commander's perspective, is that the contractor will not be there to perform or will leave when hostilities break out. How

great is this risk? It is really defined by four elements: the criticality of the missions being performed, availability of alternative resources, authority to direct compliance, and finally, history. There is no doubt that the systems supported and the functions being accomplished are critical to the prosecution of the battle. The systems involved include JSTARS, Patriot, AN/GYQ-21 data-processing equipment, and the Fox chemical biological system, to name a few. Functions performed include maintenance and even systems operations. As a result of downsizing, privatization, and modernization, there are no DoD resources available to fill potential voids.

Regarding the authority or capability of the commander or the Service, virtually every audit, study, or article written on the subject says the same thing. The Services cannot ensure that the contractor will be there when hostilities begin. Legally, contractors cannot be compelled to go into harms way, even when under contract, unless there is a formal declaration of war. In 1980, the Logistics Management Institute published a study entitled *DoD Use of Civilian Technicians*. The report summary stated:

> . . . continued reliance on civilian technicians means that maintenance skills are not being successfully transferred from the producer to the ultimate user of the system. Should civilians leave their job in wartime or other periods of heightened tension, the material readiness of key systems would be jeopardized.[43]

In November 1988, a related DoD IG report expanded this perspective, stating there was:

> . . . no capability to ensure continued contractor support for emergency-essential services during mobilization or hostilities, no central oversight of contracts for emergency-essential services, no legal basis to compel contractors to perform and no means to enforce contractual terms.[44]

The report recommended that all commands identify war-stoppers that should be performed only by military personnel and other services that could be contracted out if there was an adequate contingency plan that ensured performance if a contractor defaulted. The DoD responded with DoD Instruction 3020.37, *Continuation of Essential DoD Contractor Services During Crises*, which simply lays the responsibilities on the commander for finding alternatives or accepting the risk. In June 1991, the DoD IG completed a follow-up audit report entitled, *Civilian Contractor Overseas Support During Hostilities*. The report's bottom line again was, "DoD components cannot ensure that emergency-essential services performed by contractors would continue during crisis or hostile situations."[45] The report goes on to say:

> If the contractors leave their jobs during a crisis or hostile situation, the readiness of vital defense systems and the ability of the Armed Forces to perform their assigned missions would be jeopardized. Therefore, it is necessary to seek ways to assure that civilian contractor support will continue during periods of greatest need.[46]

Their findings and recommendations for accomplishing this, along with DoD's response to those findings, are summarized below:

Finding 1: DoD components cannot ensure the continuance of emergency-essential services during crises or hostile situations.

Response: DoD Instruction 3020.37, while published in November 1990, had not been completely implemented. That instruction provides that the heads of components ensure annual reviews are accomplished to identify such services. The activities commander shall "either obtain alternative personnel to perform the services or prepare a plan to obtain the services from other sources or accept the risk."[47]

In reality, the component commander cannot compel contractors to perform, even under contract, if it would force them to go into harm's way. Additionally, the three options provided in the response are not realistic. There are no other available resources. Thus, the commander has no real alternative other than to accept the risk.

Finding 2: Require identification of war-stopper services that should be performed exclusively by military personnel.

Response: Not necessary, DoD Directive 1100.4, *Guidelines for Manpower Programs*, identifies those functions that must be military.[48]

IG Final Report: DoD Directive 1100.4 is 37 years old. It does not establish standard criteria for identifying these functions, without which the components will continue to identify a wide range of services.[49] (The report, overall, implied the current reporting was ineffective.) That now 44-year old regulation says:

> Civilian personnel will be used in positions which do not require military incumbents for reasons of law, training, security, discipline, rotation or combat readiness, which do not require a military background for successful performance of the duties involved and which do not entail unusual hours not normally associated or compatible with civilian employment.[50]

Finding 3: Require an annual reporting system identifying the number of contractors performing emergency-essential services and the number of contractors involved.

Response: The requirement for the components to conduct the annual assessment and to have contingency plans is sufficient. "The number of contracts is not the important factor; the need is to make sure we are able to carry out our mission."[51]

IG Final Report: The number of contracts and contractors is valuable information. That is evident by the fact that the Assistant Secretary of Defense (Production and Logistics) requested that the IG provide data on the number of contractors and contractor personnel in theater.[52]

This is important information. How does a commander in chief (CINC) or a field commander plan requirements without knowing who and how many people will be there or what requirements are actually on contract? It is also a critical factor in determining force protection requirements, an issue discussed later.

Finding 4: Revise DoD Instruction 3020.37, to include "Provisions to safeguard personnel performing emergency-essential services during a crisis or hostile situation."

Response: Not necessary, "the commander is charged by the Geneva Convention with protecting the lives of all noncombatants."[53]

IG Final Report: The response to this finding will not afford the contractor employees with similar priority, rights, and privileges accorded to DoD personnel. Geneva conventions deal with identification of noncombatants, not protection. "Only 1 of 67 emergency essential contracts reviewed contained provisions to protect contractors against chemical and biological warfare."[54]

The DoD response to this finding was incredulous. In Desert Storm, the coalition forces had to provide chemical and biological gear to Civilian Reserve Air Fleet (CRAF) pilots to ensure their continued operations into theater. Today, the United States will not allow the CRAF, which provides approximately 33 percent of heavy lift, to travel into a chemically or biologically tainted airfield.[55]

In fact, the DoD response to all of the findings reflects that they either did not understand the issues or, worse, did not care. This is reflected in their policies. In addition to the Services' being governed by a 44-year-old instruction, there is a 13-year-old directive, DoDD 1100.18, *Wartime Manpower Planning*, which states that DoD manpower utilization policy is to "encourage civilian employees who occupy emergency-essential positions and contractor personnel who are performing critical support activities overseas to remain in the theater."[56] How? Who? With what? DoDD 1404.10, *Emergency-Essential DOD US Citizen Civilian Employees*, dated April 1992, says: "It is DoD policy [to] limit the number of emergency-essential civilians to those positions specifically required to ensure the success of combat operations or the availability of combat-essential systems."[57] Yet, virtually every review and study related to the subject has stated emphatically that civilian contractors are providing vital support to critical systems, and their continued support to those systems in time of hostilities is crucial to mission success.

The final element defining risk is history. History has, for the most part, found contractor personnel doing their jobs during times of crises or hostilities. However, in the previously cited LMI study, the authors proposed:

> It was questionable whether the civilians would have remained when the bullets started flying. There were a few instances of contractor/Department of the Army Civilians wanting to leave the theater because of the dangers of war. However, many people have doubts about how long they would have stayed if the operations had been costly in lives.[58]

There have been a few examples to substantiate these fears. In South Korea, in the wake of the 1976 tree-cutting incident in the demilitarized zone, emergency-essential civilian contracting personnel fled their posts at the prospect of imminent hostilities.[59]

Additionally, in the wake of the desert conflict, several CRAF contractors reduced the percentage of systems they would place under the program. We have yet to see any major incident involving contractor personnel or equipment. It must be noted also that in Vietnam and Korea—and to some degree in Desert Storm—contractor personnel involved "normally had the advantage of at least some military training and were generally familiar with the tactical and operational levels of employment."[60] They might be compelled to stay by their understanding of the mission or out of a feeling of camaraderie. This was not necessarily the case in Southwest Asia and in Macedonia and will be even less likely in the future.[61]

Again, as reported by LMI in its after action report, senior logisticians felt civilian contractors were vital for Desert Storm.[62] That was 8 years ago when we had several hundred thousand more military and DoD civilian members. Today, even more critical functions are in the domain of civilians. Contractor support on the battlefield at today's level of dependence has not been tested in a real life-threatening hostile situation. Desert Storm cannot be held up as the way things will be. We need to prepare for the worst case, and that case is where critical contractor personnel leave their posts. The point is not that civilians would not stay. They may or may not. However, they are not combatants. The point is they do not have to stay, and the Department of Defense needs to work to minimize the risk that fact entails.

The Noncombatant

> In ancient times, as evidenced by the laws of Manu, the Old Testament or the writings of Kautilya on Sun Tzu, there was no attempt to identify those who were entitled to be treated as combatants. In former times, especially in small states, as soon as war was declared, every man became a soldier; the entire people took up arms and carried on the war.[63]

Warfare slowly evolved into the concept of professional armies, and a distinction developed between the soldier and the nonsoldier or noncombatant.

> In order to promote the protection of the civilian population from the effects of hostilities, combatants are obliged to distinguish themselves from the civilian population while they are engaged in an attack or in a military operation preparatory to attack.[64]

The distinction between combatant and noncombatant is critically important to all parties as it defines the treatment of the individual in time of war and is shown in the matrix.

The law of war related to this issue stems from both the Laws of The Hague and from the Laws of Geneva. Section 1, Chapter 1, of the Laws of The Hague, 18 October 1907, entitled "The Qualifications of Belligerents," defines combatants as follows:

> Article 1. The laws, rights and duties of war apply not only to armies but also to militia and volunteer corps fulfilling the following conditions:

Category	Military Target	POW Status	War Criminal
Combatants	Yes	Yes	No
Noncombatants	No	Yes	No
Illegal Combatants	Yes	No	Yes

Table 2. Combatant Versus Noncombatant

> To be commanded by a person responsible for his subordinates; to have a fixed, distinctive sign recognized at a distance; to carry arms openly; and to conduct their operations in accordance with the laws and customs of war.[65]

This description was further defined by Article 43 of Protocol I of the Geneva Convention, dated August 1949.

> The armed forces of a party to a conflict consist of all organized armed forces, groups and units that are under a commander responsible to that party for the conduct of its subordinates. . . . Such armed forces will be subject to an internal disciplinary system that, inter alia, shall enforce compliance with the rules of international law applicable in armed conflict.[66]

Those who do not fit these descriptions are noncombatants. DoD civilians and contractors fall into this category. The reasons contractors and DoD civilians cannot be considered combatants are:

- Neither category of civilian is subject to the commander's internal disciplinary system (for US forces, that is the *Uniform Code of Military Justice* [*UCMJ*]).
- Neither is necessarily trained to conduct operations in compliance with the law of armed conflict.
- The contractor is not subordinate to the field commander.

The law of war, however, has historically recognized the right of noncombatants to be present in a combat area "and [they] may even be aboard combat aircraft, vessels, and vehicles on operational missions. They may provide technical support and perform other logistics functions."[67] This international recognition is somewhat dated (reaffirmed by the Geneva Convention Protocol I of 1949). As defined in Air Force Pamphlet 110-31, *Civilians Accompanying the Armed Forces*, a category of noncombatants entitled to prisoner-of-war status, includes:

> . . . civilian members of military aircraft crews, supply contractors' personnel, technical representatives of government contractors, war correspondents, and members of labor units or civilian services responsible for the welfare of the armed forces.[68]

It goes on to warn that trends since World War I have tended to blur the distinction between combatants and noncombatants. This includes civilians, resulting in less protection for the noncombatant, because: "(a) growth of the number and kinds of combatant, including guerrillas . . . [and] (b) growth of noncombatants engaged in activities directly supporting the war effort, including armament production . . . ."[69] The pamphlet is dated 19 November 1976, and significant changes in weapon systems and operations have occurred since that time, making that distinction even more difficult.

While the Protocol—and subsequently this pamphlet—recognized the noncombatant status of civilian aircrews, it is extremely improbable that the authors of either document envisioned civilian technicians assisting in the collection of surveillance data during operational missions. Did they envision civilian maintainers providing battlefield maintenance of a TOW missile, the M1A1, the Bradley, or the Patriot missile, as was evident during Desert Storm when they accepted the civilian-accompanying-the-troops philosophy? How about contractors supporting the gathering and interpreting of data from the Joint Air Forces Control Center and feeding intelligence and targeting information to operators? Were they the noncombatants described in these conventions? As we privatize the communications-computer field, will contractors, who at least supplement our information warrior force, be noncombatants?

In his legal opinion regarding the noncombatant status of having contractor/civilian operators for the Dark Stars remotely piloted vehicle, W. Darrell Phillips—Chief, International and Operational Law Division, Air Force Judge Advocate General School, Maxwell AFB, Alabama—determined these operators would risk losing their noncombatant designation and could be considered illegal combatants.[70] A person:

> . . . cannot be a combatant and a noncombatant at the same time. However, by Article 51 (3) of Protocol 1, 1997, a noncombatant, that is to say a civilian who takes part in hostilities, loses his/her status under both the Protocol and Civilian Conventions and for as long as he operates in that capacity, becomes a legitimate object of attack.[71]

Additionally:

> . . . since they are not combatants (lawful) and not within the extremely restrictive category of levee en masse if they commit a combat act (defined in the terms of the German manual as "participate in the use of a weapon system"),[72] then they are liable to trial as "unlawful" combatants or war criminals.[73]

The implications are that, by having a contractor accomplish a particular job, field commanders may be asking them to give up their protected status and even possibly risk execution if captured. Additionally, there is certainly some question as to whether the commander is violating the law of war by having a civilian noncombatant participate in combat. So why not just make them combatants? US civil law precludes civilian contractor personnel from meeting the four criteria specified in Section 1, Chapter 1, Article 1 of the Laws of The Hague and the requirements of Article 43 of Protocol 1 of The Geneva Convention, which determine legal combatants. Regardless of their inclusion in the Air Force Core Values,

contractor personnel have not been held to the same standard that society holds its military members. The fact is these personnel are different from soldiers, and these differences mean a great deal to a commander's pursuit of combat operations. If employed improperly, the commander could risk being liable for violation of the laws of war. Additionally, a commander could commit the US Government to care and benefits for contractors commensurate with those of veterans.

Discipline and Control

One of the key differences between the contractor and the soldier—and also one of the primary reasons contractors do not qualify under the definition of combatants—is they are not subject to the military's internal disciplinary system, the *Uniform Code of Military Justice*, unless there is a declared war.[74] In an overseas deployment, contractor personnel cannot be disciplined by the military for violations of the *UCMJ*. In fact, typically, the only recourse commanders have for punishing contractors for crimes committed on post is, working through the contracting officer, to send them home and let their respective chains of command or boss determine and administer punishment, if any. The military may, if the offense is of a criminal nature, refer charges to the Department of Justice. From the contractor-employee perspective:

> . . . the most important thing contractor employees need to know are the terms of the contract they are working under and the Status of Forces Agreement (SOFA) between the United States and the country they are serving in. Depending on the SOFA, contractor employees may be subject to local and criminal laws of the country in which they are deployed.[75]

In countries where justice is based upon the Talmudic code—an eye for an eye—this could be extremely important.

This issue of contract brings us to another key difference between the military member and the contractor and another significant reason they are not and cannot be considered combatants. A field commander needs to understand this concept for contractor personnel. These personnel are not compelled by an oath of office but rather by the terms of their employment contract. "One of the hardest things for military personnel to do is to learn to interpret a contractual agreement literally, to assume nothing."[76] The contractor is authorized to accomplish only those tasks within the scope of the contract and is answerable for performance only to the contracting officer or representative. The contract language directs that the contractor not take orders from anyone other than the contracting officer or a duly appointed representative. The representative cannot direct action outside the scope of the contract. This is a fiscal and liability issue. Commanders risk personal liability for the cost of unauthorized work as well as for the cost of property that might be damaged.

Another important point for commanders' operational planning is the fact they cannot command or give orders to these individuals as they do a soldier. It is also important to understand that contractor employees enjoy the legal right to unilaterally terminate employment rather than accept the hardships and potential danger occasioned by exposure to combat operations.[77] The commander cannot assume that they will remain on the battlefield or even in theater simply because of military necessity or personnel shortages even though they knew the risks when they signed on. Civilians cannot be compelled to deploy, remain in a designated area, or perform certain missions, and they are not subject to criminal punishment for refusal to do so.[78]

One final note. While not a legal issue in the vein of *UCMJ* or contract law, the laws of war require that combat be accomplished in accordance with the applicable laws of war. This implies a distinct understanding of the conventions and the ability of the State to define its operations in terms appropriate to those laws. The LMI study cited a couple of findings worthy of consideration. First, some of the people interviewed "perceived a lack of clear command and control over contractors. Army units had difficulty determining who had management control over contractors."[79] Couple this with their finding, "our interviewees sensed that the contractors were not aware of the commander's intent and the political consideration of their effort."[80]

Force Security

Since the Khobar Towers incident where terrorists used a car bomb to severely damage the compound housing US military members working at the base, killing 19 and injuring hundreds, force protection has been one of the number one priorities and responsibilities of commanders. What is not often discussed is the commander's responsibility to protect the growing number of contractor personnel. That responsibility is—or at least should be—expanding as more contractors move into potentially hostile areas to perform necessary functions. In his article, "Contractors on the Battlefield," Lieutenant General Williams, Vice Commander of the US Army Materiel Command, frames the issue: "Noncombatants require force protection resources."[81] It sounds simple enough, but it is not a simple matter. These personnel may not be living or performing their duty at the base or compound. They may have family members accompanying them, and they are not required to observe the same restrictions that commanders may place on military members.

In a potentially hostile situation, there must be security forces available to escort contractor personnel. For that matter, security is also required for government contracting personnel who oversee the contractors' performance. As previously discussed, contractors and other noncombatants cannot arm themselves other than for self-protection. Use of a weapon to defend coworkers or equipment changes their status and could subject them to treatment as a combatant or possibly even a mercenary (subject to execution). Therefore, force protection is a requirement. This often requires commanders to take some degree of risk, regarding the effect on the security of their bases or posts by dividing

scarce force protection assets. It is a risk they will be reluctant to take if they do not understand the issue. In a briefing to Defense Contract Command Western District commanders, Lieutenant Colonel Dan Krebs, who had commanded the command's contract administration team in Haiti, stated that one of his greatest tasks was managing the security support for his team as they went to check fuel quality or water shipment.[82]

One of the related challenges, also identified in the *Army Magazine* article, was, "Noncombatants cannot perform rear area security missions."[83] Force protection people are a scarce commodity. Often at overseas locations, other support personnel augment the force protection personnel. The Khobar Towers after action report even recommended the use of other (nonforce protection) personnel to augment the force protection mission.[84] As military support forces are privatized, the resources for augmentation of the security forces dwindle. The result is longer shifts, more deployments, and a severe drop in retention rates, further compounding the problem. It should be noted that one of the Air Force responses to the shortage and retention problems is to look to contract out some of the functions accomplished by those forces on CONUS bases.[85]

Finally, in long peacekeeping or even conflict situations, contractors often bring family members. The mass exodus of civilian technicians that resulted from the tree-cutting incident mentioned earlier was attributed to their fear for the safety of their dependents. After escorting their families to safety, most returned to their posts to fulfill their missions.

This force protection role may be the least understood, yet most important. The first time a commander fails to provide the security necessary and that failure results in loss of life or capture will be the time we see how well we can operate on our own.

Recommendations

Civilian leaders have a mandate from the people of this country to build a smaller, more efficient military. Therefore, you will not see a recommendation for the Department of Defense to fight force structure cuts or downsizing efforts. The Department of Defense is already well down the road in privatization and competitive outsourcing efforts, as it should be. However, it seems to have started the process without a coordinated master plan. The primary recommendation is to make sure core competency requirements are dictating what is outsourced and not the other way around. What is required now is some forethought and planning in bringing about new reductions and in-depth analysis of the effects of privatization and outsourcing efforts to date on warfighting capabilities. The risks need to be minimized by eliminating the unknowns and illuminating the risks, facts, and issues.

A recent distinguished guest lecturer at the Air War College said that with the advent of the Air Expeditionary Force, the Air Force is looking at every job and skill—his example was civil engineers—at those AEF locations before authorizing outsourcing efforts. It is an excellent start. However, analysis needs to go beyond AEF and include actions taken already. Retention rates, deployment requirements, criticality of the systems supported, private sector sources of supply, and training time need to be addressed. Is AEF determining the support concept for weapon systems; as an example, the C-17? A thorough review of all support specialties is needed.

Commanders have been placed in a precarious position. They need these contractors in order to accomplish their mission but have been given no tools with which to work. Doctrine needs to be developed—a joint publication focused specifically on contractors on the battlefield. Things that need to be considered include contractor deployment and time-phased force and deployment data applicability, force protection and self-protection responsibility, discipline, understanding contract scope and authority, liability, and the law of armed conflict applicability.[86] This needs to be taught to officers early on and emphasized just the way officers are taught to lead their soldiers. After all, from a strategic perspective, they are being treated as though they are soldiers.

The DoD IG recommendation for developing a methodology and system for reporting the number and requirements of each contract with emergency-essential responsibilities needs to be followed up. DoD contracting officers are required to have analyzed the requirements and determined whether they constitute emergency essential services. That information needs to be gathered and made available to CINC planners.

Finally and admittedly a little out of the box, we need to get with our lawyers and acquisition experts and define a methodology that provides commanders with administrative and tactical command of contractor personnel during hostilities—maybe a deputizing clause that in times of Presidential-declared crises makes contractors reservists.

We cannot stop the move to increased private sector involvement and can no longer limit the involvement to base operations or supply. Those functions are already significantly private-sector provided. What leaders must do is drive further outsourcing, not by how many military it removes but based upon a risk assessment. The outcome of a wrong choice could well be measured in lives and possibly battles lost.

Conclusion

The Department of Defense is gambling future military victory on contractors' performing operational functions on the battlefield. Contractors are becoming increasingly responsible for in-theater taskings previously accomplished by military personnel. This has occurred auspiciously due to significant and necessary cuts in force structures and the related need to transition, through outsourcing or privatization, *nonoperational* functions to the private sector. However, contractor numbers are increasing in theater and on the front lines, and their support is directly related to combat operations. The functions being accomplished by contractors today are not nonoperational support functions. They include maintenance and even

operations of vital warfighting systems— JSTARS, Patriot, M1A1, and Dark Stars, to name just a few. In fact, fiscal policy has driven us to a point where there is—or will be—no organic military capability in many functions critical to weapon systems performance.

What this means is contractors need to be on the battlefield performing their job even when confronted by life-threatening hostilities. The irony is the contractors legally cannot—and possibly should not—be compelled to remain in harms way and participate in hostilities unless war has been declared. They are noncombatants and risk extreme penalty if their actions are determined to be in violation of that categorization. As the US military has attempted to compensate for force drawdowns, the distinction between military member and contractor support has been conveniently blurred. This is placing commanders and civilian operators in a predicament regarding the laws of war, the terms of this *new soldier's* employment contract, and the effect of these issues on the ability to perform the mission. While a transition of support functions, perhaps even operational functions, from the military to private sector is required by budget necessity, it seems to be happening without a master plan or risk-based assessment. There is little evidence that the strategic and doctrinal implication of contractors on the battlefield is being addressed. Each new outsourcing effort must be reviewed and past efforts analyzed based on their overall implications to our warfighting ability. Our logistics support concepts may need to be adjusted to accommodate rear echelon or less risky support. Field commanders must be provided with information regarding the size and requirements related to contractor operations. Finally, if nothing else, we must provide field commanders and contractors with a doctrinally based understanding of the challenges faced in times of hostilities.

The single deadliest incident during the Persian Gulf War occurred when an Iraqi scud missile hit barracks housing Army Reservists who were providing water purification support far from the front. Today, the military relies heavily on contractors for this support.[87] If death becomes a real threat, there is no doubt that some contractors will exercise their legal rights to get out of the theater. Not so many years ago, that may have simply meant no hot food or a reduced morale and welfare activity. Today, it could mean the only people a field commander has to accomplish a critical core competency tasking, such as weapon system maintenance or communications and surveillance system operations, have left and gone home. Warfare is changing. It appears, unfortunately, that, rather than face this change, we are hoping that nobody notices.

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The demise of the Cold War, reallocation of fiscal resources, and the kinds of joint future coalition warfare or operations the United States expects to conduct during the 21st century require innovative and creative thinking by America's military leaders. Recently, the Chairman of the Joint Chiefs of Staff issued *Joint Vision 2010* (*JV2010*), a document that provides a conceptual framework for America's Armed Forces to think about the future.[1] The premise of *JV2010* is that joint military interoperability, coupled with a strong technological underpinning, will be a key tenet in conducting military operations in the 21st century. The *JV 2010* identifies four new operational concepts requisite in the conduct of future military operations. These concepts are Dominant Maneuver, Precision Engagement, Full-Dimension Protection, and Focused Logistics.[2]

Historical Foundation

The use of civilian contractors and reliance upon the civil sector in the support of war efforts are rooted in history. During the Revolutionary War, much of the land transport was provided through the contract system of hiring teams and drivers.[3] This is one of the earliest recorded examples of civil sector support to an operational commander. In another example, during the Mexican War of 1850, General Jessup, the Quartermaster General, relied heavily upon private transportation throughout the entire war effort.[4] Prior to World War II, the US military routinely relied on the private sector for much of its support. Former Secretary of the Air Force Sheila Widnall noted:

> Lest you think this is a new phenomenon, let me take you back to the era before World War II when private support was standard. It was only during the Cold War when we realized the huge buildup of government operations that we came to think of government support as the norm.[5]

Further, Clausewitz recognized the need for civil sector involvement in the sustainment of forces when he described the ability of the warfighting soldier to *live off* households or the community during battle.[6]

However, the role of logistics in waging war has evolved from the simple requirements of the American Revolutionary War soldier to the complicated and costly logistics requirements of today's modern warrior and machines.[7]

Rear Admiral Henry E. Eccles clearly recognized the need for significant civil sector involvement in his seminal work, *Command Logistics*, when he stated:

> We should remember that since the amount of logistics support available to any commander is limited, the commander who utilizes his limited resources most efficiently will have the greatest freedom of action and combat capability.[8]

Efficient use of limited resources in today's environment strongly dictates active and viable involvement of the civil sector with the operational warfighting commander. Thorpe clearly recognizes this fact when he states, "preparation for war is not complete until the laboring man is prepared for war."[9]

The technological underpinnings of *JV 2010* and the Focused Logistics operational concept rely predominantly upon the flow of information back to the operational commander. Sophisticated, technologically advanced computer and information systems are required to not only provide the necessary command and control of the warfighting forces but also identify and ascertain availability of provisions and supplies during combat and noncombat operations (operations other than war [OOTW]). Morgenstern recognized this need for the operational commander when he stated:

> . . . the deeper analyses of the problems of military logistics will show that the most difficult and most important aspects lie in the field of information and in the flow of messages and papers.[10]

Technology available in the civil sector allows improved means of communication and opportunities for new organizational arrangements.[11] These organizational arrangements allow for greater managerial control and improved planning by the operational commander.[12]

a civil sector force multiplier for the operational commander

focused logistics 2010

Colonel Joseph B. Michels

Civil Sector Involvement with Military Operations

Civil sector involvement in military operations is called outsourcing, which is defined as the transfer of a function previously performed in-house to an outside provider.[13] Competition by the government with the private sector in performing services that are not inherently governmental in nature has been expressly prohibited since the middle of the Eisenhower administration. *Bureau of the Budget Bulletin 55-4* expressly prohibits such functions:

> The federal government will not start or carry on any commercial activity to provide a service or product for its own use if such product or service can be procured from private enterprise through ordinary business channels.[14]

Current acquisition policy contained in *Federal Acquisition Circular 90-29* confirms the same basic position:

> It is the policy of the Government to . . . rely generally on private, commercial sources for supplies and services, if certain criteria are met while recognizing that some functions are inherently governmental and must be performed by Government personnel . . . .[15]

Many studies have investigated the outsourcing process and identified various factors that result in successful outsourcing contracts.[16,17,18,19,20] As government enters the 21st century, many senior leaders strongly advocate the use of methods and models that are successfully employed in the private sector but have not been applied extensively in a nonprofit environment such as defense. The presumption of efficiency in the private sector is challenged less forcefully, but the challenges rely on theories of noncompetitive markets, examples of malfeasance by contractors, and concerns for equity when private firms profit from provision of public services.[21,22,23,24] New, innovative methods and *out-of-the-box* thinking are required more than at any time previously in order to achieve the defense mission with the fiscal resources allocated. Creativity and innovation are the keys in today's resource-constrained environment.[25]

These precepts are diametrical to the function of a governmental bureaucracy, especially that of the Department of Defense. As the largest bureaucracy in the federal government, change and innovation are not ideas or concepts that are easily embraced by entrenched government bureaucrats. Carnes Lord perhaps best described the dynamics of bureaucracy in his book *The President and National Security* when he stated:

> Perhaps the most powerful factor determining bureaucratic behavior is the instinct of organizational self-preservation. Like all other forms of life, bureaucracies tend to pursue survival before all other goals. Also like other forms of life, they tend to be resourceful in adapting to their environment. Bureaucratic entities are, as a result, notoriously difficult to kill off, even after their original reason for being has disappeared. Organizational survival is inseparably bound up in organizational identity.[26]

Warfighting *CINCDOMs* represent the best of a long-entrenched bureaucracy. Organizational support paradigms, structures, and frameworks not familiar to the operational commander are inevitable in improving efficiency of operations. The *JV 2010's* Focused Logistics operational objective mandates logistics done in a new manner and relies on civilian contractors to provide that support—a tall order for any warfighter to swallow, let alone implement. However, with no organic military resources to rely upon, the civil sector will become paramount in the successful accomplishment of the military operation.

Operational Logistics in the 21st Century

The support provided to the warfighting commander in chief (CINC) is composed of the four pillars identified in Figure 1. The foundation of the entire support structure is civil sector support. As used in this context, various contractors supporting the operational CINC are identified in Table 1.

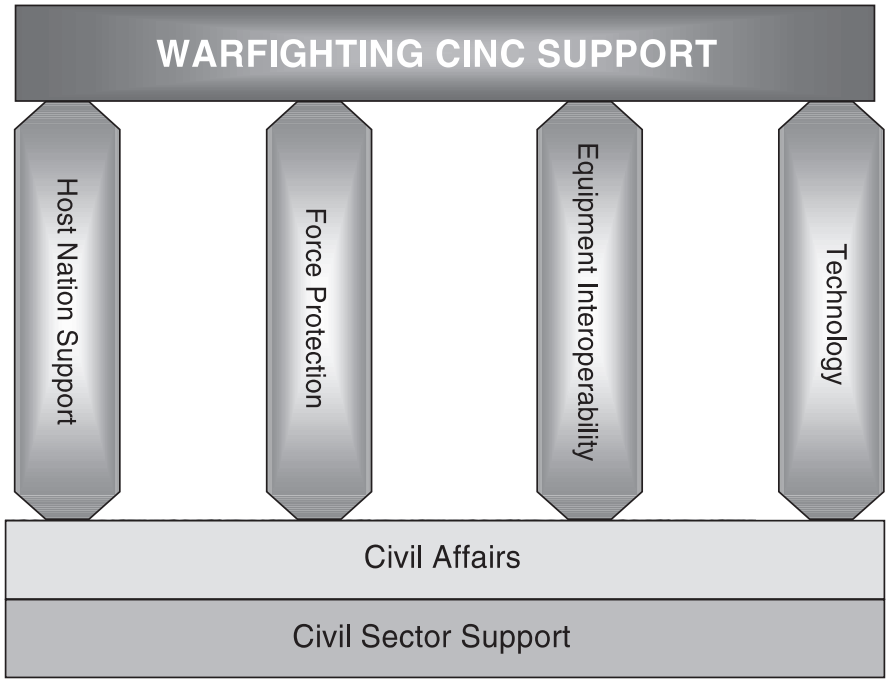

Figure 1. Operational Logistics Pillars

Contractor Type	Location
Commercial	International
Organic, indigent to hostile region	Host nation/nation where hostilities are transpiring
Third World Nationals	Worldwide, Third World Countries

Table 1. Contractor Types and Locations

Commercial contractors may include such well-known US companies as Brown and Root, Boeing Services, and Holmes & Narver—companies that have offices and headquarters in the United States and make a primary business of providing military base infrastructure support and contracted assistance to the American Government overseas. Conversely, foreign commercial contractors could also be successfully employed to provide support to the operational warfighter and may be essential if American contractors are unavailable or unable to perform the tasks required. Third World national contractors may also be employed, as is the case in Southwest Asia where many Third World nationals from countries such as India, the Philippines, and Pakistan are employed to do labor-intensive work.

In each case cited, relationships must be forged that will vary based on the type of contractor. Religious, racial, ethnic, and gender differences are all elements that must be considered by the CINC when determining how the contractor will be used. The CINC's civil affairs staff is absolutely critical in ensuring optimum civil sector support.

The civil affairs staff comprises the next *layer* on the CINC support matrix. This staff possesses the capabilities to not only understand the culture, ethnicity, and religion of the region in which the warfighting CINC is operating but also work with the local native population in obtaining support necessary for the CINC to either conduct OOTW or warfighting operations. The foundation of CINC support is composed of both civil sector elements and civil affairs staff amalgamated to obtain any required necessary support.

The four pillars of CINC support are integral to *JV 2010's* Focused Logistics concept. Coupled with the civil sector and civil affairs support, these pillars provide the integral structure for proper execution of the warfighting CINC's overall objective.

Host Nation Support

Host nation support will become increasingly critical in the 21st century as we rely upon the civil sector and warfighting coalition partners for much of our warfighting support in both armed conflict and OOTW operations. With the light, agile, tailored-to-task, readily deployable forces of the future, host nation support will be vital in ensuring that American fighting forces can effectively prosecute any action.[27] This host nation support can take the form of supplies, roads, aircraft, aircraft fuel, seaports, piers, overflight and landing rights, and information connectivity into the host nation communications infrastructure. Military civil affairs personnel with specific language skills representative of the region in which the operation or conflict is transpiring will be increasingly vital to the CINC. These native-speaking people will provide the operational commander with insight and understanding.

Force Protection

The most significant command responsibility is the protection of one's troops before, during, and after the hostility period. Nothing is more paramount in this regard than troop or civilian contractor protection. The strong reliance on civil sector support will necessitate that force protection be constant and vigilant throughout the hostility period. Manning augmentation of military protection forces by civil sector contractor personnel is used to protect buildings, equipment, and vehicles of American combat personnel. The various types of contractors defined in Table 1 can be used for this task. The warfighting CINC must be able to critically assess the risk of using the different types of contractors for the various mission elements. Significant here is the fact that contract personnel from Third World countries may be providing the bulk of the security for American equipment or administrative facilities. This is indeed a distinct paradigm shift from the Cold War era. However, with force reductions, troop drawdowns, and the need to outsource support infrastructure, warfighters will be used in combat operations exclusively. No longer will organic military personnel perform various support functions. Critical to success in the force protection arena is trust between the contractor and the American soldier. This trust may take a long time to earn but a short time to destroy. The CINC must spend significant time and energy ensuring a strong trust develops between the fighting forces and the civilian support contractor personnel.

Equipment Interoperability

The third tenet of the warfighting CINC's support is equipment interoperability. During the Cold War, equipment interoperability specifications for the North Atlantic Treaty Organization (NATO) were common for all member countries. Equipment interoperability is vital in the 21st century where coalitions will be formed to prosecute many of the actions in which the United States may be involved.

The warfighting environment of the 21st century involves both American military forces and coalition forces of other nations. As the United States draws down its overseas force structure and transitions to an expeditionary force based in the continental United States (CONUS), reliance on the support infrastructure of

our coalition partners will be even greater than now. When the height of the Cold War involved equipment interoperability according to standards of NATO, equipment interoperability was much less an issue than it might be in the future. Military personnel were normally responsible for repair, operation, and maintenance of equipment, accompanied by a long logistics support tail that provided parts for any maintenance discrepancy. The Focused Logistics portion of *JV 2010* relies heavily upon civil sector support in the theater of operations, generally with support provided by the host nation in which the conflict is being conducted. Significant problems are envisioned by this approach.

The strong reliance that *JV 2010* places upon commercial equipment, processes, and procedures strongly dictates that American, European, and Third World equipment have compatibility and interconnectivity. However, this interconnectivity will probably be impossible to obtain. There are not only different standards of operation and sizes of equipment but also differences in such simple things as power sources or the control panel operating language. Interconnectivity becomes an even greater issue when concerned about metric and standard type threads and equipment measurements. Strong reliance upon the civil sector, in theater, may result in failure to rapidly obtain the necessary spare parts to ensure strong equipment viability.

A solution to this problem may be the use of commercial, international equipment instead of military unique or specific hardware. The reduction in support infrastructure and tail and the use of commercial contractors may diminish many interoperability issues. Civil sector dominance will become increasingly vital to ensuring global coalition equipment interoperability.

Technology

Technology and information science-based civil sector support provide the infrastructure for the operational commander of the 21st century. Commercial technology exploitation has successfully been tested by the Defense Logistics Agency. These technologies include the Automated Manifest System, in which the shipment manifests are contained within a laser card that can be scanned at all points within the delivery cycle, providing up-to-the-minute status of the commodity destined for the battlefield electronic commerce/electronic data interchange—the use of *paperless* transactions for procurement, ordering, delivery, and payment of supplies—is routinely used throughout the world. Premium Service, an analogous service to Federal Express' overnight package delivery, has been used in peacetime operations in the CONUS. Dedicated truck support is also being successfully used to deliver repair parts to and from the repair depot to the base of utilization. Most of these technologies are currently CONUS based, with plans to use each in a worldwide contingency.[28]

Each technology described previously will only be as viable as the supporting infrastructure the military has in place. These technologies change rapidly, to the degree that many different software versions or releases may be on the battlefield at the same time. This will become and remain a significant issue for the operational commander. Martin van Creveld recognized the importance of technology when he cited:

> The shorter the war, the greater the importance of weapons and weapons systems. The longer it is, the greater the role of military activities other than fighting, pure and simple, and the greater the role of technologies that impinge on these activities or govern them.[29]

Technology will dominate the concerns of the operational commander in the future. With the many *technology-driven* systems that are currently being fielded, a homogeneous system integration of the various technological types will be essential to successful operational battlefield success. Van Creveld recognized systems homogeneity when he identified:

> No weapon has ever won a war on its own and without support, clearly some integration is required. On the other hand, there exists a point beyond which integration, regardless of whether it was brought about by the strength of the opposition or by the inherent nature of technology itself will lead to diminishing returns.[30]

Information warfare and the prevention of information systems disruption must be a real concern of the operational commander's J6. Viruses, *Trojan Horses,* and other data-related disruption agents must be continuously expected with the great dependence upon high-technology information systems. The ability of the enemy to penetrate and disrupt one of the technologically based information systems poses additional security issues. If the enemy is able to successfully remove a space-based asset or its communication up or down link, the operational commander will have no access back to higher headquarters or other command and control facilities. Contamination or enemy infiltration of the commercial sector support systems may prevent them from providing the operational commander with the required computer systems support. This continues to be an increasingly major concern when relying upon civil sector support.

Conclusions and Recommendations

Will Focused Logistics as envisioned by *JV 2010* provide the robust wartime logistics support required by the operational commander? The evidence presented so far is inconclusive; however, it does suggest that *JV 2010* is *not in touch* with reality.

The DoD/military culture is conservative, risk averse, and not prone to risk taking. Further, entrenched bureaucracies are highly resistant to change for a variety of reasons. Risk taking will have to be encouraged if vital civil sector support, as

envisioned by *JV2010*, is to become a true reality. Large-scale exercises both in CONUS and overseas must be dedicated to the support doctrine espoused by *JV 2010* and the Focused Logistics objective. Systems failures must be expeditiously remedied and improvements made. Pilot studies of various sizes, using *JV2010* Focused Logistics concepts and ideas, should be immediately implemented to identify shortfalls and failures. Careful analysis of each pilot study will identify changes required to optimize *JV2010* tenets and objectives. These lessons learned will be vital to all operational commanders, regardless of the theater of operation.

The strong degree of technological dependency envisioned by *JV2010* will not be possible until some *umbrella* architectures are developed for many of the disparate logistics technologies. These *umbrella* architectures must be international in nature and scope, as our dependence upon coalition warfare strongly dictates the United States will most probably use coalition warfare in all hostile engagements.

Contractor force protection, both physical and electronic computer systems, must be carefully planned in critical detail. This is a *knotty* area, for not only must the contractor personnel be protected but also the equipment, supplies, and computer information systems. New concepts must be developed to make this a reality. These concepts must be successfully integrated with operational coalition combat forces, a matter that defies any easy solution.

The *JV2010* Focused Logistics objective is based upon some lofty and highly optimistic technological assumptions that are pervasive throughout the Focused Logistics objective. The DoD Computer-Aided Logistics Support initiative is now approximately 15 years old, but still no unitary international standard or discrete systems architecture has been successfully developed for all combat forces world wide. Without careful monitoring of *JV 2010's* Focused Logistics objective, the same problems could plague this idea as well, leaving the operational commander without any real logistics support provided by the civil sector.

Cultural changes and paradigm shifts will be required if *JV 2010* and civil sector logistics are to become a reality.

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are we ready to FIGHT and WIN the next war?

Lieutenant Colonel Duncan H. Showers

The concept of outsourcing and privatization—or competitive sourcing and privatization (CS&P) as it is now known in the Air Force—has become a way of life for the US military establishment. These contractual instruments are tools that are used to find the most efficient method for conducting day-to-day business. However, why are the Services even interested in doing business better? After all, if the military's primary roles are warfare and crisis response, why do we care if we do it efficiently? What has driven the military to become obsessed with efficiencies? The simple and obvious answer is money.

Since the end of World War I, the American citizenry has historically demanded a *peace dividend* at the conclusion of each war or conflict. The end to the Cold War was no different—the victory over the former Soviet Union resulted in a demand for major cutbacks in defense spending. The cutbacks sought were roughly equivalent in magnitude to those experienced at the termination of earlier conflicts and brought about the decision to *shape the forces* needed for defense. This downsizing or *right sizing* drastically and rapidly reduced the numbers of personnel across all of the Services. The overall force structure has been reduced 36 percent since 1980. In addition, the Department of Defense (DoD) experienced a major budget reduction. However, it was not a parallel one-for-one exchange but a two-for-one reduction of almost 60 percent in real buying power as compared to 1985.[1]

These reductions, felt by all Services, created imbalances for which each Service has struggled to develop strategies to accommodate. Of serious concern to military experts and critics alike has been the *tooth-to-tail* ratio. The ratio in question compares the budget spent on the *tooth,* which is the combat power of the American military, against the budget dollars of the *tail,* which is the support portion that ensures combat power can be applied and sustained as needed. The tooth-to-tail ratio, out of balance since the end of the Cold War, was of such major concern to Secretary of Defense Cohen that he instituted a commission to develop solutions. Specifically, the Tooth-to-Tail Commission was charged with finding:

> . . . ways to save money in the tail portion of the defense budget . . . while shifting those savings to the tooth—warfighting segment. That ratio, nearly a 50-50 balance at the end of the Cold War, has grown to the extent that nearly 70 percent of the defense budget now goes toward support elements, said commission members.[2]

Statistics for the DoD indicate that only 14 percent of the some 2.5 million members are officially listed in combat positions. [3] In this environment, the obvious challenge for the military is to become more efficient at supporting the warfighter—a doubly challenging prospect in light of greatly reduced fiscal resources. The DoD portion of the budget has shifted significantly in the last 30 years. In 1962, the defense portion of the budget was 9.3 percent of the Gross Domestic Product (GDP). Except for the Vietnam era when it peaked at 9.4 percent in 1968, it continues to decline today. Based on the Office of Management and Budget (OMB) records, the defense budget is now 3.3 percent of the GDP—almost one-third of what it was 36 years ago.[4] The budget reductions have forced all of the Services to pursue more efficient methods of supporting the warfighter while continuing to provide for necessary force modernization programs. Outsourcing and privatization became the solution of choice across the DoD. However, implementing it Air Force-wide has been difficult. Change, while inevitable because of budget considerations, has proven elusive because of the many years of experience with largely organic support capabilities and the success enjoyed with this approach. Organic support underpinned Air Force operations during virtually the entire Cold War. The result was large depot operations, massive stockpiles, and *push*-style logistics—all necessary to keep the support structure intact and available to respond quickly.[5] This support philosophy was driven by the possibility of extended conflict with a rival superpower and a less sophisticated private, commercial infrastructure. However, the budget and force structure imperatives of the post-Cold War environment make changes in both support force structure and support concepts a necessity

The end of the Cold War also drove major changes in US military strategy. In keeping with the 1998 US National Security Strategy, the Air Force must be prepared to protect the nation's interest, wherever and however they are threatened. This translates to a requirement to participate in fighting two *near simultaneous major theater wars*. The conflicts expected are often described best as *come-as-you-are* wars. The time frames for the expected duration of operations will allow little time for mobilization, and production surge capability will have little relevance as success is expected quickly. In fact, many military leaders agree the era of long, drawn-out, wars of attrition is over.

Specifically, there is "no need to maintain an extensive, costly capability to *surge* the production of large platforms such as fighters

and warships."[6] Consequently, today's US military is planning for a highly mobile, technology driven battlefield environment. These realities demand innovation in order to ensure full, timely, and complete support is available to the warfighter.

The DoD, and subsequently the Air Force, adopted a variety of outsourcing and privatization initiatives as the primary way to find the resources required for both warfighter support and modernization programs. In fact, outsourcing and privatization has been heralded by contractors and defense experts alike as the panacea for the modernization challenges facing the Air Force. Under the Air Force's CS&P initiatives, as savings are realized, the monies will be reallocated into the force modernization area to pay for future weapon systems.[7] In light of a 35 percent budget reduction, it only makes sense to pursue the most efficient and cost-effective actions. The Air Force, however, must be careful in how it goes about making competitive sourcing and privatization decisions. There is a danger that wrong or misguided decisions will undermine its ability to perform and sustain critical wartime missions.

Competitive Sourcing and Privatization Defined

The Defense Science Board defines outsourcing as the transfer of a support function traditionally performed by an in-house organization to an outside service provider, with the government continuing to provide appropriate oversight. The board defines *privatization* as involving not only the contracting out of support functions but also the complete transfer of facilities, equipment, and other government assets to the private vendor. This can include ownership of the processes to provide goods and services.[8] It is important to note that not all military areas are considered candidates for outsourcing and privatization.

Functions within the military that, by definition, are commercial activities are *eligible* to be performed by contract. The definition of a commercial activity is "the process resulting in a product or service that is or could be obtained from a private source."[9] Eligibility for contract action, however, does not automatically make a function or activity a contract candidate. Were this true, practically any function performed by the Air Force, excluding perhaps *bombs on target*, would be eligible. Specific exemptions to contract action are found in OMB Circular A-76. Interestingly, one of the foremost reasons an activity is exempted from being contracted out is when it is considered a *core capability*. Core capability is defined as:

> . . . a commercial activity operated by a cadre of highly skilled employees, in a specialized technical or scientific development area, to ensure that a minimum capability is maintained. The core capability does not include the skills, functions, or full-time equivalents that may be retained in-house for reasons of National Defense, including military mobilization, security or rotational necessity, or to patient care or research and development activities . . . .[10]

Alternately, other noncommercial activities are exempt from the cost comparison process because they are considered to be an *inherently governmental activity;* that is, an organic function of the federal government. Typically, these are functions the government must perform because they involve the stewardship of taxpayers' dollars. Contracting activities or government audit functions are classical examples of areas that have traditionally been considered inherently governmental. However, outsourcing and privatization efforts have begun to erode these traditional governmental roles. For example, the District of Columbia recently outsourced its contracting office for efficiency reasons.[11]

Outsourcing and Privatization: A Winning Game?

The DoD is on a fast track to adopt, adapt, and apply the lessons learned from the business world. The basic premise being the military will be able to maintain its competitive edge in the rapidly changing global security area and find resources for modernization programs through adoption of the best business practices

In 1995, the Defense Department proposed that all the Services maximize their outsourcing and privatization initiatives in order to dramatically improve efficiency and reduce the overall cost of doing business. The resulting economic windfall would be pumped back into weapon system modernization programs. The windfall would be achieved through the Services' implementing proven *best business practices* in everything possible, while at the same time focusing on their core activities. Noncore functions would be contracted out wherever possible. The significant appeal of this process is that it allows the Services to concentrate on those activities that are truly unique and vital to the organization. By contracting out all noncore—but nevertheless important—functions (transportation, grounds maintenance, payroll, inventory management, and routine maintenance), leadership and management can concentrate on improving quality, responsiveness, efficiency, and effectiveness in the remaining core activities. The stated outsourcing and privatization cost savings for all Services have been significant. Projections indicate that in the future cost savings are expected to grow.[12] However, both actual and projected cost savings may not withstand close scrutiny. For example, in testimony before Congress, the General Accounting Office noted that it had been unable to substantiate savings claimed by the DoD. Among the reasons cited were poor cost accounting and contract cost growth.

The Air Force has been an active outsourcer, and its competitive sourcing and privatization efforts have saved an estimated $500M annually. For the DoD in total, cost savings from outsourcing and privatization are projected to be between $7 to $12B annually by fiscal year 2002.[13] Air Force officials estimate that savings from competitive sourcing and privatization initiatives will exceed $600M each year

between now and the year 2002.[14] In light of diminishing budgets and the need to fund weapon system modernization programs, the savings from these initiatives—or other form of relief—will be essential as modernizations bills come due. DoD-wide estimates project that $60 to $80B will be available for modernization programs over the next decade.[15] While other measures—such as base closings, civilian personnel reductions, and defense mergers—may be needed to secure the full amount required, it appears competitive outsourcing and privatization initiatives will play a primary role in cost reduction. An important aspect to consider, however, is the overall impact these initiatives have had and will have on the DoD. Too often, we have learned far too late that economics is not—and should not be—the overriding factor in the decision-making process. The human factor is significant and should not be ignored. Unfortunately, its relationship to military readiness and preparedness is often hard to quantify.

Available research indicates the private sector has done a better job at downsizing than the government.[16] Although, interestingly, several observations appear to be applicable to both the private and military sector. The goals for the military, *not-for-profit* organization are often quite similar to that of private industry. For example, both the military and the private industry seek to recruit and retain high-quality people. The modernization of equipment to maximize operations and increase productivity is often as important in the private sector as it is in the military. The ability to maintain a technological edge over the competition while increasing efficiency and reducing overall costs is critical to both sectors.[17] The success of the 1991 Air Force reduction-in-force program (early retirement and *early out*) in reducing personnel end strengths is well documented. What is not well documented is the impact this program had on those that remained. It is very easy to quantify factors that contribute to operations and personnel tempos. End strengths, maintenance rates, sortie generation capability, budgets, retention rates, and reenlistment figures are all measurable and useful factors. The more difficult measurements include psychological factors such as morale or commitment. Corporate America may have some answers in this regard. But what exactly has the private sector learned from downsizing and reorganization, and what lessons should the military apply to its own efforts? Are *best business practices* what the military must pursue to survive in the *zero sum* budget game?

The basic theory behind downsizing and reorganizing, two key best business practices, is that by eliminating positions organizations have the potential to achieve substantial savings in salaries, retirement and social benefits, and overhead costs. However, within the business world, reality has often not kept pace with expectations. It appears that, in many cases, labor force cuts have reduced productivity and failed to achieve forecasted savings. Of 531 companies surveyed in 1993, the following facts were garnered:

- 58 percent hoped to achieve higher productivity; only 34 percent were successful.
- 61 percent tried to improve customer service; only 33 percent succeeded.

Further, if force reductions were conducted with the goals of increased productivity and retaining high-quality employees, the studies indicated they were effective in less than half the companies surveyed.[18]

It can be argued if quality people remained following the downsizing of the military it was primarily by chance. The casualties of these reduction programs were not just the emotional casualties who were asked to leave the service of their country but also the *survivors* who remained. The productivity of the Services has been compromised, and ever-increasing numbers and types of missions and continual demands to produce in a *do more with less* environment have led to increasingly stressful lives. For example, in 1998, the Navy reported a 7,200 recruitment shortfall, while the Air Force has had less than a 20 percent success rate in the area of pilot retention. Marines are now deploying once every 5 weeks compared to once every 15 weeks just 10 years ago. According to Major General Charles R. Henderson, Deputy Chief of Staff for Air and Space Operations, the Air Force is deployed more than twice as often now as in 1989. Additionally, the soldiers, sailors, and airmen who are not deployed are working longer hours to make up the difference. According to a senior Pentagon official, the Air Force is trying to keep almost every squadron ready for any contingency anywhere—"It's killing them."[19]

Stress and uncertainty do indeed take their toll. Whether private sector or government worker, military or civilian, the effects are real. Burned-out bosses, worn down by *mission creep,* coupled with the stress of telling employees they are no longer needed after years of faithful service, affect middle managers across the board. In the private sector studied, 1 of every 20 employees was a middle manager, yet 1 of every 5 workers laid off was a middle manager. By comparison, the Air Force lost at least 25 percent of the officer corps through drawdown programs. The obvious emotional toll (depression, anger, and a sense of betrayal) experienced by people let go is but one facet. Those remaining are often struck with cynicism, and loyalty to the *greater good* is often the first intangible to be destroyed. Customer surveys indicate that a dissatisfied customer will often tell 100 persons about the poor treatment received while good service will seldom be related to more than 10 persons.[20] More critical in today's world of expanding mission requirements are the effects of reduced morale and an inclination of members to avoid risks and initiative, from which failure could be used as a *discriminator* in the next round of force reductions. This *avoidance factor* also includes the reluctance to suggest ideas that may make the organization more efficient. Any future *force shaping* or

implementation of best business practices must be carefully considered using evaluation criteria that look at factors beyond pure economics.[21]

Within the DoD, the largest example of outsourcing and privatization is one that has led to an *immediate and tangible decrease* in the level of support services. This is the competitive sourcing of medical care for dependents through TRICARE—or as some refer to it "Try to get care"—program. Whether the frustration of a new situation was completely justified, perception was reality for many TRICARE recipients. Fully castigated as a *breach of faith* with our military community, TRICARE has not been held up as the shining light of competitive efforts.

If providing day-to-day medical support, something available from medical systems across the country, is so difficult, do we dare hope profit-oriented contractors, to which we have outsourced functions necessary for crisis or wartime support, can or will perform any better?

The Defense Industry: A Bridge Too Far?

The last 10 to 12 years have seen a drastic reduction in the Department of Defense as well as the defense industry that supports it. As defense budgets declined or flattened, defense contractors have looked to diversify, shed their defense-related units, or sought merger options that allow them to compete for the remaining limited defense procurement programs. While the recent trends toward outsourcing and privatization have opened up new areas for contractor involvement, most of the true, *hard-core,* warfighting industry corporations have all but disappeared. Matching the recent decline of the Armed Forces since the end of the Cold War, civilian employment in the defense industry has plummeted by more than 2 million workers—at its peak, this rate was measured at 1,000 jobs per day.[22] Gone are the days of Rockwell International, Goodyear Aerospace, General Dynamics Space Business, Hughes Aircraft, Grumman, or even McDonnell Douglas as defense industry leaders. These long respected names have either disappeared completely or become absorbed as mere divisions in new giant contractors. However, segments of senior DoD leadership are not concerned about this radical shift. They contend these shifts in the defense industry have been neither disastrous nor avoidable. In fact, many see the shrinkage of capability over the last decade as a realistic and necessary response to the changing world.[23] Unfortunately, much of the military industrial infrastructure is gone and with it the capability to mass-produce weapon systems and necessary support items.

The reductions in the defense industry occurred at a time when the Department of Defense was struggling with force structure changes and defining future requirements necessitated by the end of the Cold War and the associated changes in the global security environment. The US position as the world's only superpower helped develop a consensus that the potential for a long drawn-out military engagement was essentially nonexistent. Essentially, "the surge capability needed for aircraft, ships, and tanks during World War II . . . will not be needed in the 21st century."[24] The primary difference today is that only the surge production of expendables, such as munitions and spare parts, is expected. There is general agreement that some sort of standby capability for those items is needed. It is envisioned these assets will be available "through an integrated civil-military production line so the military does not have to pay "for . . . excess capacity sitting around waiting for a surge requirement."[25] This surge capability, however, is anything but guaranteed. For example, in the aerospace industry, Lockheed Martin, The Boeing Company, Northrop Grumman, Raytheon, and Litton are all that are left of the 51 companies that existed some 14 years ago. These defense contractors now have virtual control over all defense procurement dollars. Additionally, each of them has downsized, outsourced functions, and taken serious privatization actions to remain competitive. Recently a proposed merger between Lockheed Martin and Northrop Grumman was viewed by the Justice Department as creating a virtual monopoly. Interestingly, the biggest concern voiced by government was not that the company resulting from the merger would be too big but innovation could suffer and put military lives in danger.[26] The area of specific concern was electronic warfare. The problem is when a company has its own in-house capabilities, down to second- and third-level suppliers, real competition may cease to exist. When competition is limited, costs can be expected to rise significantly. Vertical integration of this type is seen across the defense sector.[27]

Ultimately, critics complain that when facing zero competition a company has no incentive to improve performance, innovate, or keep costs low. Further, while *right sizing* through vertical integration may make production more economical, it does not account for required surge and sustainment capabilities. Interestingly, a former Lockheed Martin chief, Norman Augustine, first identified concerns over vertical integration with the Pentagon. Augustine warned there were signs that some of the megacompanies were pursuing the *shutout route* to minimize competition. The potential results of this situation are self-defensive reactions that propagate cutthroat business techniques and, subsequently, damage the opportunity for competition and limit the number of available suppliers for critical items. To circumvent this concern, Pentagon officials closely examine each potential merger within the industry to ensure it does not adversely affect competition. "The rule that encourages efficiency through consolidation is still the basic policy of the Defense and Justice Departments. We will continue to encourage consolidation where there's excess capacity and competition can be maintained."[28]

The Future Is Now

What is the Air Force vision? How will it be structured in the future? Where are we going next? *Joint Vision 2010* is the blueprint for the development of weapons and ultimately the force structure to deploy and operate them. Based on the results of the 1997 Quadrennial Defense Review, the requirements, as outlined in the National Security Strategy, are "to be able to deter and defeat large-scale, cross-border aggression in two distant theaters in overlapping time frames."[29] The usual scenario is one that halts the enemy, builds up US forces, and after approximately 45 days, supports a US counteroffensive. During the end of this scenario, the United States will pack up its initial *halting capability*, redeploy it halfway around the world, and do it again. It might just work out that way, but as personnel retention levels in key skill areas plummet, the direct combat capability of the Air Force may well be seriously affected.

Senior military leaders believe the forward-deployed forces are as combat ready as the *first to fight* forces that will deploy.[30] Unfortunately, the follow-on forces—the ones that will take somewhere around 30 days before they can engage—are not so healthy.[31] None of the Services have all the people they require, and the forces in the follow-on category have a lower priority when personnel shortages exist. These shortages subsequently affect training opportunities and readiness. Further, all of the Services have seen a steady increase in the numbers of weapon systems and major parts awaiting depot repair and maintenance. According to Senator McCain, of the Senate Armed Services Committee, the DoD maintenance backlog has grown steadily from $420M in 1991 to more than $1.6B at present. These problems are particularly significant in ground communications, the special purpose vehicle fleet, readiness spare packages, and component repair. These depot backlogs ultimately affect the mission capable rates for all aircraft.[32]

Spare parts shortages exist in all the Services. In some cases, this has meant they are only marginally able to meet mission requirements.[33] From an Air Force perspective, the lack of spare parts continues to grow and is expected to peak in 2001 at slightly more than $300M in required assets.[34] If the air fleet was being used less, because the Air Force has downsized by almost 35 percent, the argument could be made that the fewer spare parts and associated funding lines could be easily worked. However, because of high operating tempos, airframes are in greater demand than ever. The Air Force today handles an operating tempo four times greater than it experienced during the Cold War.

A necessary factor for the United States to fight and win any future conflict is the ability to strike swiftly, at great distances, and with lethal power projection. The piece that seems to be missing today is lethal projection—or rather a sustained lethal power projection. This is not unique to the Air Force; the Navy has indicated concern over low stocks of precision-guided munitions (PGM), significantly the Tomahawk Block III missile. Inventories are currently such that some naval units only receive one training missile each year.[35] The October 1998 launching of 78 Tomahawk missiles to destroy the terrorist training camp in Afghanistan represents the equivalent of approximately 5 years of training for all submariners in today's Navy.

The Air Force faces the same basic concerns. According to Air Force Chief of Staff General Michael E. Ryan, "We lived off the surplus from the 40 percent drawdown of our forces in the early '90s." Although we have redefined our on-hand stocks to be adequate, funding for munitions and other necessary combat support items is no longer adequate.[36] While there are sufficient quantities of iron *dumb* bombs, the weapons of choice, PGMs, are in short supply. Further, industry sources indicate it takes 2 to 3 years to generate a PGM production line and begin new production and assembly.

Conclusion

A primary theme for outsourcing and privatization is increased value and cost savings. Private industry, driven by profit and regulated by market forces, should perform more effectively, more efficiently, at lower cost, and faster than the government. This, however, has not always proven to be the case. For example, the Department of Energy (DOE), which relies heavily on the private sector (80 to 90 percent of its budget goes to contract requirements), has failed miserably—and not because of inexperienced contractors. Industry giants such as Martin Marietta and General Electric have been the recipients of DOE contracting efforts. A slim organization by some standards, DOE employs only 20,000 civil servants, while its contractors employ approximately seven to ten times that number. While the total number employed is debatable, the DOE contractors' miserable record is not.[37] The Rocky Flats Arsenal in Colorado that produced plutonium triggers for hydrogen bombs is a case in point. Rockwell International, one of the major contractors, poured toxic and radioactive waste into the ground and illegally stored more in drums. Part of the problem, according to the 1991 DOE inspector general report, was the government's attitude to let Rockwell run the show. This was recommended since Rockwell employed professionals and had the contract to dispose of the material correctly. Unfortunately, it gets worse. DOE also used the Rockwell polluters to clean up the same mess they had made and paid them handsomely, $27M, to do it. But again Rockwell did not do it quite right. The General Accounting Office estimates the cleanup will take until 2009 and cost an additional $170M. What had DOE done wrong to receive this performance by Rockwell? It turns out DOE did everything correctly—the contractor did not perform as expected. The circumstances at Rocky Flats and other locations are not unusual for DOE. In fact, DOE attributes most of its problems to situations when the government contracts out. The lack of qualified

managers—and in some cases incompetence—often leads to a surrender of authority to the remaining administrative shell attempting to integrate, consolidate, and supervise the many contractors involved. Ultimately, decisions that should be in the hands of government employees, those who have the core expertise discussed earlier, end up in the hands of the contractor.

Similar abuse of contracts can also be found in the Environmental Protection Agency (EPA) Superfund cleanup efforts. Profit-oriented contractors decided which sites to clean up and how to clean them and even identified what constituted *clean.* Interestingly enough, contractors drafted the EPA regulations, trained other contractors, and even evaluated other contractors' performance—primarily because the federal government did not have the qualified personnel or expertise to do it itself. The ability to develop and maintain the key organic technical competence needed is often lacking for many government agencies. Oftentimes, the *governing contractors* were working for the same contractor they were evaluating.

It can also be argued that contractors who are driven by the *bottom line* too often see the government as a bottomless pit of money and resources. Several examples within the Department of Defense illustrate this point. Food service and maintenance and repair provided to the Army were *low balled* by the contractor and cost $600K more than if retained in house. At Fort Sill, Oklahoma, the contractor exceeded his cost-plus contract bid by $14.8M.[38] Unfortunately, oftentimes when an agency finds a contractor's performance completely unacceptable, it is usually too late to revert back to a government in-house work force—the funding, positions, and people are no longer available. Ultimately, service suffers, the desired end state contracted for does not happen, and employees must be hired to perform the work on a temporary basis until the contract can be reworked. Subsequently, a work force that is already overworked and undermanned must now provide the required management oversight. This added stress becomes even more critical when viewed in the light of today's operating tempos.

Competitive sourcing and privatization have been portrayed as a way to generate savings that could be used to support weapon system modernization programs. Unfortunately, the Government Accounting Office reports that estimated savings from outsourcing DoD logistics activities are overstated by almost two-thirds. The projected annual savings were estimated to be $6B; however, errors in estimates, overly optimistic savings assumptions, and legal and cultural impediments will limit the savings to approximately $2B.[39] Although significant, it becomes quickly obvious there are not enough savings to modernize as quickly as expected. The Joint Chiefs of Staff has voiced concern over this situation.[40] Current estimates indicate it will take congressional action and as much as $90B over the 5-year Defense Plan to meet modernization requirements.

Several things seem clear. First, outsourcing and privatization initiatives have not generated the needed cost savings to support modernization programs—congressional relief is needed in order to adequately fund these activities. Second, outsourcing or privatizing activities do not always produce the economies and efficiencies expected. Third, outsourcing and privatization initiatives must not compromise Air Force warfighting capabilities. Taken in total, there is reasonably strong evidence the Air Force should both limit and slow the process of future outsourcing and privatization initiatives. Clearly a more measured and planned approach is necessary.

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FOR ALL DEBTS, PUBLIC AND PRI

Political Economy of privatization for the american military

Colonel R. Philip Deavel

The concept of privatization has become a catchword for modernization and efficiency in the American military, but the Department of Defense (DoD) is certainly not at the cutting edge of the privatization movement. It is in fact at the tail end of the world's march to privatization—somewhere in the parade ahead of Fidel Castro but, ironically, well behind the former Leninist leaders of the Russian Federation. This situation is not inherently bad: there are major differences between the needs of military and civilian societies that often make brilliantly sensible policies for the private sector inapplicable to the Armed Forces. Nevertheless, in order to be truly understood, the current debate on privatization in the DoD needs to be analyzed in the context of the global movement, away from socialism and through the prism of the American military.

As used in the current lexicon of the American military, *privatization* is an all-encompassing word for moving responsibility for functions and processes from the public sector to the private sector. It encompasses both the narrower form of privatization, *outsourcing* (now termed *competitive sourcing*) and *absolute*

privatization. For clarity of communication, I will adopt the definitions of outsourcing and privatization as set forth by the Defense Science Board. The Board defines *outsourcing* as the "transfer of a support function traditionally performed by an in-house organization to an outside service provider, with the government continuing to provide appropriate oversight."[1] The Board defines *privatization* as "involving not only the contracting out of support functions, but also the transfer of facilities, equipment and other government assets to the private vendor."[2]

The Global Picture of Privatization

Most forms of public (that is, governmental) ownership of industrial production, social services, and utilities were created on a socialist ideological underpinning of what constitutes the common good. This holds true if one reviews the Leninist economic model of the former Soviet Union; the economic philosophy of the 1930s Fascist regimes of Italy and Germany; the Fabian socialist (Fabian Society) ideology that gave birth to the British Labor Party; or the liberal, democratic model of President Franklin D. Roosevelt's New Deal.

The collectivists of the 1930s showed great ideological diversity, and some, especially in the United States, went to great lengths to advocate socialist economic models while scrupulously avoiding the use of the socialist cant common to European labor parties. However, they all shared a common collectivist belief in the basic goodness of government economic intervention and governmental ownership of key parts of the national economy.

The relentless unraveling of socialist economics that has occurred during the last 50 years is beyond the scope of this article. Suffice to say, perhaps no ideological movement has promised so much wealth and prosperity for mankind, only to deliver such a bitter harvest of economic stagnation and poverty as modern socialism.

Those governments that embarked on the socialist economic equivalent of complete-immersion baptism—the absolute ownership of vertically integrated industries from the production of raw materials to the creation of the final manufactured products—found their ultimate economic pain absolutely magnified. As the correlation between socialism and poverty became ever stronger, the daunting challenge faced by governments around the world has been to withdraw from commercial enterprises.

Those regimes that have deduced that an open repudiation of socialism would undermine their own historical legitimacy have retained a shell of collectivist jargon while filling their policy core with aggressive privatization practices built upon capitalist ideals. The best example is the Chinese government's disingenuous explanation of its capitalist policies as "socialism with Chinese characteristics."[3]

While government-owned commercial enterprises often poorly serve the general public, that does not mean no one profits from their existence. Management and labor in government-owned industries can be counted on to man the ideological barricades in unison to oppose privatization and are passionately supported by their allies in the public-sector trade unions. These groups are supported in turn at the national level by government ministries whose reason for existence is the supervision of state-owned enterprises and/or operation of economic regulatory programs.

The Fruits of Privatization in the Civilian Sector

While the short-term political pain governments must endure to privatize industries is often intense, the long-term benefits make the effort worthwhile. The tidal wave of global privatization began to form in Britain with the election of Margaret Thatcher in 1979. A generation of industrial nationalizations by successive Labor governments had left the country suffering from what was known around the world as the *British disease*.[4] Far from enhancing the standard of living for the nation, Britain's nationalized industries were extracting the equivalent of $600 *annually* from each taxpayer in subsidies in order to keep them from collectively going bankrupt.[5] Over vociferous public-sector trade union opposition, the Thatcher government undertook a comprehensive program of denationalization. By 1996, these same companies, now privatized, not only were off the corporate welfare roles (that is, receiving no further cash infusions from the government) but also *paid to the British Treasury* the equivalent of $200 in taxes for each taxpayer in the nation.[6] Indeed, British Steel, which required perennial infusions of cash while owned by the government, now represents a global benchmark for the efficient production of steel.[7]

The experience of the British government is consistent with the results of privatization around the world. In 1992, the World Bank conducted a global study of the net effect of privatization in four nations: Britain, Chile, Malaysia, and Mexico. In the aggregate, the bank found that privatization produced a net gain of 26 percent in economic output for the denationalized industries.[8] The bank found the biggest efficiencies flowed from one factor alone: the new-found freedom of privatized companies to hire and fire employees and to craft compensation packages that reflected the true value of individual productive output.[9]

While privatization did in fact create *losers* (the State employees who now faced the more demanding requirements of market economics), the bank found the nations, as a whole, gained prosperity from the enhanced economic performance those countries reaped from privatization.[10] Whether one views the equation in utopian terms of the *greatest good for the greatest number* or makes

a cold-eyed calculation of what best enhances a nation's economic status, the evidence is overwhelming that privatization works.

Cultural Impediments to Privatization

While the concept of privatization is the same around the world, the impediments are not. Few political leaders have the luxury of analyzing privatization in bare economic terms. As an example, Margaret Thatcher's first privatization venture was the 1984 sale of British Telecom (a government-owned monopoly provider of telephone service). Viewed as a pure economic transaction, it would have been in the best interests of the British government to seek the highest possible sale price for the telephone company. Simple economics would have dictated that individuals and corporations from around the world be allowed to purchase as much stock as they desired. This would expand the pool of bidders and ensure the highest possible sale price. Furthermore, the Goliaths of the world equity markets—investment banks and pension fund managers—should have been allowed to bid for large blocks of the stock to ensure the initial public offering (IPO) price, for the shares truly reflected global demand.

However, Thatcher's administration took the very opposite approach.[11] Her government set the IPO for the shares artificially low, all but guaranteeing the stock could be quickly resold on the secondary market at a tidy profit. The government then offered to sell a large percentage of the stock directly to small British investors at this predetermined (and artificially low) price. While not publicly acknowledged, strategic political considerations, rather than short-term economic goals, drove the terms of the privatization. The government's strategy was aimed at two primarily political objectives. First, it wanted to neutralize the opponents of privatization, who had argued that the denationalization of British Telecom would generate unjust profits for wealthy individuals and foreign corporations. Second, Prime Minister Thatcher wanted to build an appetite for further denationalization in the British electorate. By *guaranteeing* that citizens who participated in the privatization by purchasing stock directly from the government would turn an instant profit, the benefits of denationalization became immediate and tangible to a wide swath of voters who cared little about the abstract economic debate.

This strategy was spectacularly successful. More than 2 million small investors applied to purchase British Telecom shares directly from the government.[12] These small investors were extremely well rewarded for placing their savings into the British Telecom privatization. On the first day British Telecom stock began trading on the international exchanges, the share price rose a stunning 90 percent over the price these small investors had paid the government.[13]

From the beginning, the Thatcher government quite cleverly co-opted the British public into becoming its ally in privatization by allowing small investors to act as arbitrageurs between the government and the global equity markets. In pure economic terms, allowing the British public to profit as the middleman in denationalization did not add value to the process. It was, however, immensely valuable in achieving the government's overarching strategic objective of moving Britain from a statist to a free-market society. The manner in which British Telecom was privatized created an irresistible momentum in support of widespread privatization for every sector of the economy. Prime Minister Thatcher understood that *social dynamics* of privatization were every bit as important as its mathematics.

Unfortunately, analysts of privatization in the American military, especially those in favor of greater privatization, tend to approach the issue using naked economic calculations. unclothed with considerations of the cultural framework they attempt to change. These proponents view the DoD as being inherently values neutral in its use of economic models or—in the alternative—as a bureaucratic robot with neither the right nor the ability to oppose the changes thrust upon it. This economically sophisticated—but politically naive—approach causes needless turmoil within the uniformed services and exasperation for the privatization advocates when their objectives are repeatedly stymied.

Military Culture and Privatization

Military professionals analyzing defense privatization must realize this policy issue will not be addressed solely in martial terms. Similarly, civilian leaders must make concessions to the exigencies of forward deployments, labor on demand, and ultimately, combat. It is unpersuasive for military leaders to resist specific privatization initiatives essentially on the grounds that the proposal would be inconsistent with traditional military practice and equally unpersuasive for civilians to ignore the noncommercial realities of the profession of arms.

The Defense Science Board defined one of the primary impediments to privatization in the military as the "resistance of the DoD culture to fundamental change."[14] The Board attributed the military's hostility to privatization as flowing from its orientation on readiness rather than efficiency. While no doubt technically accurate, the Board's analysis skims the ideological surface and does not address why the *culture* of the DoD is hostile to private sector solutions or why military officers assume organic (government-owned) support services better enhance readiness.

The American Military as a *New Deal* Society

Military culture and its system of personnel benefits, with a general preference for State ownership of economic assets, is solidly rooted in the paternalistic and socialist ideals of President Roosevelt's *New Deal*. While this assertion might strike many career military members (who in recent years have been collectively accused of what might be termed *excessive Republicanism* by liberal critics) as counterintuitive, the points of commonality between socialism and the military are in fact striking.[15]

First, on a personal level, the military controls an omnipresent social service system on which the average service member is deeply dependent. Rather than provide income that individuals are free to allocate as their needs and desires dictate, military compensation is predicated upon providing modest salaries supplemented with government controlled services. Ergo, military optometry care might be basic and provide only black frame glasses of little aesthetic appeal, but the service is free and available to all. Indeed, for many military members every facet of life is provided for and controlled by the State. The house where they live, the school their children attend, the clinic where they receive medical care, and the stores where they shop are all owned and controlled by the State. The State provides these benefits for *free* or at a reduced cost.

Almost alone among major organizations in America, the military clings to a defined benefit rather than a defined-contribution pension system. Defined contribution plans, commonly referred to as 401(k) or 403(b) from the sections of the tax code that authorize them, utilize tax-deferred retirement accounts into which the employee and/or employer make monthly contributions. The employee owns the assets immediately or vests for ownership in relatively brief periods of time. Customarily, employees have great freedom to select specific investment vehicles and may roll the assets over to a new deferred account if they elect to change employers (total portability).

The modern 401(k)/403(b) is the essence of the free market ethos: it places great responsibility on the employees to plan for their retirement; in turn, it empowers them to control their own destiny. The defined benefit plan utilized by the military is at the other end of the spectrum. It is a classically socialist system: military members never contribute a penny of their own money to the system and, in turn, have no voice in how the system is funded. There is normally no vesting (the right to draw benefits) until 20 years of service, and the system has no portability. That is, barring unusual force reduction measures, a service member voluntarily departing with 19 years of service has no accrued assets and leaves with nothing.

In its totality, the military compensation system would be viewed as strange by the typical American employee at Microsoft, while his counterpart in a socialist collective farm would immediately recognize it as strikingly similar to his own world. Is it really so surprising that individuals nurtured and raised in such a system tend to cast a jaundiced and distrustful eye at the freewheeling private sector?

This military orientation toward rigid command and control production and compensation systems rather than decentralized market models is certainly not unique to the United States. William H. McNeill, in the *Pursuit of Power*, catalogs the widespread appeal command economics has for military elites in *The Pursuit of Power*.[16] This sweeping review of the relationship between civilian society and military forces over the last 1,000 years chronicles how both the 19th century Prussian and British armies, distrustful of private industrialists, attempted to contract for armaments exclusively through government-owned arsenals. Only after it became painfully obvious that weapons from government arsenals were consistently inferior in design and overall quality did conservative British and German officers turn in frustration to the private sector. Indeed, it has been popular at times in the Anglo-American view of history to paint the Prussian General Staff and Krupp's industrial combine as locked in an unholy alliance of conquest and profits. McNeill shows how in reality the Prussian Army stubbornly attempted to keep armaments production inside army-owned plants. The General Staff finally turned to Krupp, resentfully, only out of fear that inefficient and technologically inferior government arsenals would imperil German security.[17]

Whether one analyzes 19th century European armies or the modern American military, the cultural bias against the private sector remains constant. The power and security that command economies are as compelling for military leaders as they are for Marxist ruling elites. However, like Marxist rulers, military leaders fettered to the government-controlled production of goods and services are ultimately faced with the spiraling inefficiency and continual resistance to change that are part and parcel of command economies. It makes no difference in this equation if the government-owned and directed plants are used for the production of automobiles or tanks. Likewise, the fact that the commands are given by military officers rather than civilian government bureaucrats will not inject creativity and incentives for efficiency into stodgy government monopolies. Only when the price to be paid (in subsidies and shoddy products) for the security of control becomes unacceptably high do command bureaucracies relax their grip and look to the private sector in desperation.

The social dynamic that motivated the Prussian General Staff and British Army to resist privatization—the security of control—is as relevant today for the US military as it was in 19th century Europe. The rather exasperated statements of

the Defense Science Board that military culture is needlessly hostile to the private sector and wedded to inefficient support systems might be true, but they are not particularly helpful in understanding why those policy biases exist or in ameliorating the legitimate concerns of commanders.

The Ghost of McNamara

The Department of Defense has a long collective memory. The privatization debate has a hauntingly familiar ring to career military officers. It resonates with the policy initiatives of an arrogant Robert McNamara and his civilian *Whiz Kids*. Even the buzz words used then and now are similar. McNamara was, after all, determined to bring private sector business efficiency to the Armed Forces.

In perhaps his most famous quote on the subject, McNamara said, "Running any large organization is the same, whether it is the Ford Motor Company, the Catholic Church, or the Department of Defense. Once you get to a certain scale, they're all the same."[18] By such a sweeping assertion, McNamara dismissed any suggestion that the military had unique organizational needs because of its mission.

McNamara not only was determined to force private sector business practices on the military but also ever distrustful of career officers. He used his civilian systems analysts as shock troops to force and implement *reform*. His roughshod efforts to impose efficiency on the DoD, and his subsequent disastrous attempts to apply systems analysis to the war in Vietnam (for example, comparing friendly and enemy body counts as a quantifiable measure of success) worked to reinforce the military's impression that private-sector business practices are grossly inapplicable to the Armed Forces.

While one might soundly discredit a concept in military circles by merely attributing it to McNamara, that does not hold true with Congress, Presidents, or the elite of the American business world. McNamara's reorganization of the Ford Motor Company, his efforts to rationalize defense procurement systems, and his subsequent stewardship of the World Bank all won him many influential admirers in American society.[19]

If the most conservative members of the military and the most vociferous and left-wing critics of the Vietnam War agree on one thing, it is that McNamara was a disaster as Secretary of Defense. Despite the irony, the wheels of history grind on, and the military cultural deficiency that allowed McNamara to so thoroughly dominate the debate over the proper organization of the DoD shows itself again in the debate over privatization. The deficiency I refer to is the fact that the senior military leadership and the staffs that served them were ill prepared to do intellectual battle on the terms McNamara set for the debate.

McNamara's disdain for the officer corps—based upon his perception of their ignorance about professional (that is, private sector) organizational management, cost accounting methods, and other quantifiable measures of merit—should not be dismissed solely as personal intransigence, or the prejudice of a leader who favored the private sector. In reality, the management of the DoD, in particular the always vexatious defense procurement process, left much to be desired.

Thirty years after its introduction by McNamara, the *planning, programming, and budgeting process* remains the benchmark for the coherent financial integration of research and development, weapons production, and operations. Furthermore, the Office of Systems Analysis (aka the Whiz Kids), created by McNamara in 1966 and subjected to withering criticism from the moment of its birth by both military officers and congressional budget chieftains, is still alive and well. However, it now travels under the moniker of the Secretary of Defense's *Office of Program Analysis and Evaluation* and is an accepted (if at times grudgingly) part of the DoD landscape.

The dominance of systems analysis in the early 1960s flowed not from the intellectual brilliance of McNamara and the Whiz Kids, though in their hubris they believed so. Their ideas only appeared to shine brightly when compared with the utter inability of the military services to quantify their own objectives or credibly dissect the methodology of the Whiz Kids. As one of McNamara's analysts succinctly explained their ideological dominance, "Other people had objectives, we had arithmetic."[20]

Rather than deal effectively with McNamara on his own terms, the uniformed military tended to dismiss all systems analysts and their civilian advocates as the proverbial *pencil-necked geeks* who knew nothing of the equally proverbial *real world*. This is aptly reflected in the condescending remarks made by Air Force Chief of Staff General Thomas White in 1963 when he stated, "I am profoundly apprehensive of the pipe-smoking, tree-full-of-owls type of so-called professional defense intellectuals who have been brought into this nation's capital."[21] While this posturing might have done much for the military's collective sense of professional superiority, it did nothing substantively to answer the challenge posed by McNamara's organizational and budgetary expertise or respond to the relentless mathematics of his Whiz Kids.

The McNamara juggernaut was never really stopped as much as it was first tamed and then exploited by the military services to enhance their own organizational and procurement objectives. By the late 1960s, all of the Services had sent military officers to learn systems analysis as it was used in the corporate world and then used this institutionally loyal talent to establish their own versions of DoD's Office of Systems Analysis.[22]

Beyond McNamara: The Current Experience with Privatization

There are numerous policy roads that steer the military toward privatization. A modified version of the *Thatcher approach* has the potential to not only diffuse the current consternation over privatization but also turn the uniformed military into enthusiastic supporters.

Early privatization initiatives should be selected and managed to provide quantifiable and palpable improvements in the status of the military, particularly in the quality of life provided for the rank and file. Privatization initiatives should be managed in the introductory phase, not to maximize financial savings but to build a consensus inside the military that *denationalization* of support services leaves the Armed Forces better cared for than the status quo.

While the political leadership has asserted that it is pursing this objective, the reality on the ground has fallen short. First, the rewards of privatization have often been defined in promises of abstract future benefits that will accrue years from now. Even a rudimentary understanding of the congressional appropriations process does not inspire confidence that savings generated now will be reliably returned to the Air Force in the form of additional F-22 aircraft or improved barracks in future years. For military members, the generalized benefits of privatization are tenuous and intangible promises of a distant nature. Furthermore, there is the gnawing (and well-placed) fear that promises of reinvesting savings from privatization made by today's political appointees and congressional leaders are will-of-the-wisp and unenforceable. Promises are easily swept aside and forgotten by new political leaders with far different budgetary priorities. In essence, the uniformed military is encouraged to surrender tangible manpower authorizations and organically owned property today, based upon unenforceable assurances that this virtuousness will be rewarded in future budgetary decisions. This is not a formula to inspire confidence among astute military leaders in the wisdom of voluntary privatization.

Second, the comprehensive privatization initiatives that have been undertaken to date have been the antithesis of the Thatcher strategy. Far from producing an immediate and tangible benefit for the uniformed military, which will build support for future privatizations, they have tended to produce an immediate and tangible *decrease* (both perceived and real) in the level of support services. The leading count in this indictment is the outsourcing of medical care for dependents through the TRICARE program. For the vast majority of military members, their personal experience with privatization has nothing to do with depots or base closings. The decision to outsource medical care and the impact of this action on their families forms their template for judging privatization.

TRICARE has been castigated by a former Surgeon General of the Army as a breach of faith with military families that produced a "six year set back" in Army medicine.[23] It has been subjected to widespread, scathing criticism by its intended beneficiaries[24] and often found to be inferior to the former government-owned and operated military medical care facilities that were outsourced.[25] A recent General Accounting Office report warned that civilian physicians are becoming disillusioned with TRICARE because of its low compensation rates and unresponsive bureaucracy.[26] While a sound case can be made that these problems are attributable to the halfhearted and incomplete outsourcing of medical care that TRICARE represents, the argument is lost on the recipients of the program. The fundamental fact is that TRICARE remains the overarching personal experience most military members have with privatization. With this hard reality on the ground, is it any wonder that a broad cross section of military society views privatization as a code word for decreased levels of support and inferior services?

The successful outsourcing of medical care could have been a fulcrum that enthusiastically levered military society away from its embrace of *New Deal* models of support services. Indeed, it could have been the Secretary of Defense's equivalent of what the British Telecom sale was for Thatcher: a successful watershed that created a ground swell of support for privatization. Instead, the dismal TRICARE experiment has served to reinforce the traditional view that only government-owned and operated support services are reliable.[27]

Recommendations

The situation military leaders face today in the struggle over the scope of privatization is highly analogous to the one faced with McNamara. Indeed, it is essentially the same struggle, only fought over different objectives. Spearheading the drive for privatization again are political appointees guided by advisors with strong roots in the private sector.

The Defense Science Board Task Force that created the landmark study on military privatization was guided and led by masters of the private sector. The chairman of the task force was Phil Odeen, president and chief executive officer of BDM International. The vice chairman was Mort Meyerson, president and chief executive officer of Perot Systems Corporation. Once again, civilians from the private sector are defining the terms of the debate. Once again, the military operates at a double disadvantage. First, the senior political leadership that ultimately molds the Department of Defense has found the gist of the arguments put forward by this new group of private-sector Whiz Kids very credible. Second, the military is at an institutional disadvantage in raising concerns or objections that are *credible within the framework of the debate*.

When presidents of major industrial and service corporations, people of immense business competence and unquestioned patriotism, confidently state that specific

parts of the military mission can be performed better—and for less cost—by private sector contractors and support their arguments with professional quantitative analysis, those arguments do (and in fairness should) carry great weight.

Senior military officers who have spent their lives focused on the art of operations but have no experience at the executive level in the corporate world are at an immediate disadvantage in this debate. Furthermore, counterarguments that are not put in quantifiable terms—and are based on generalized philosophical premises of what parts of the support structure need to remain organic to ensure *reliability*—tend to be viewed skeptically as smoke screens for the maintenance of bureaucratic empires and the emotional security of the status quo.

The time has come for military officers to stop rowing against the tide and plunge into the world of privatization. The current ad hoc approach to privatization is largely predicated upon the Byzantine (and purely economic) requirements of the Office of Management and Budget (OMB) Circular A-76 cost comparisons. They are conducted by local commanders ill prepared to conduct the *quantitative analysis* this outsourcing requires, let alone determine how their installation-level privatizations impact the overall fabric of military support services. Ergo, if five of the six bases in a numbered air force elect to totally privatize their civil engineering squadrons based upon local budgetary determinations, how does this impact the deployment decisions of the numbered air force?

If a deployment tasking calls for 30 civil engineering troops, does the sole hapless installation commander who elected not to privatize this operation have the squadron deployed en masse to meet the tasking for the numbered air force? Do the five installations that privatized their civil engineering roll happily along during the contingency, secure in the knowledge their engineering support staff is *undeployable*? Ad hoc privatization conducted under OMB Circular A-76 rules for outsourcing does not provide a forum for even addressing such issues, let alone resolving them.

The uniformed military needs a vastly expanded pool of well-trained professionals dedicated to understanding and analyzing the world of privatization issues. To be effective, these military brain trusts *must* have true expertise in real world military operations, public sector privatization lessons learned, federal law, and policy issues, as well as a thorough knowledge of commercial capabilities in the private sector. To the degree the officer corps studies and understands the corporate world, its knowledge and attention tend to focus on the massive, vertically integrated industries of a bygone age. This is understandable since those industrial behemoths most resemble the current DoD structure and have traditionally served as the most important suppliers; they are thus comfortably familiar. However, they are of marginal usefulness in understanding the challenges of privatization.

Rather than sending the best and brightest of the officer corps to intermediate and senior service schools, a more useful tack might be for a far greater percentage to attend institutions such as the Wharton School of Business, followed by internships with the *Wal-Marts* of the corporate world.

By Wal-Marts, I mean cutting-edge businesses whose success hinges on information management, outsourcing, and a complex web of suppliers. When those officers returned to the military, they would be far better prepared to utilize privatization where appropriate. Educating military/corporate interns would also give military leadership the institutional firepower to answer credibly the challenge of today's civilian Pentagon Whiz Kids. Developing a robust institutional expertise in privatization would allow the military to coherently graft a new economic paradigm into its culture, while intelligently opposing conversion in areas where a thoughtful analysis shows it would weaken the military.

The marching orders for this privatization corps should be to analyze each initiative on its *merits* for enhancing the quality of life and operational robustness of the military. Also crucial, senior leadership should cease the public commentary that we must privatize to find money for new weapons. The unstated message in this justification is privatization does produce inferior support services, but we have no choice because of budgetary constraints. The implication here is senior leadership has placed hardware over people. Defining the motivation for outsourcing as financing weapons poisons the social dynamics of privatization.

Conclusion

The struggle between McNamara and the officer corps, which has evolved to the current debate on privatization, is often cast as a contest between military and civilian values. While superficially true, this analysis misses the mark. A long historical view indicates the partisans of both groups represent two separate but equally honorable military philosophies.

McNamara and his proteges are the modern disciples of Jomini. Like this great Napoleonic strategist, they view warfare as a cold and precise science. To McNamara—and to Jomini—success goes to the leader with the greatest organizational skill in building and wielding a massed military force. It is warfare as the science of physics, the ability to concentrate energy and unleash it on an opponent.

The precise calculation of economic and logistical efficiencies is also integral to the Jominian model. During the Napoleonic era, as during the Cold War, the size of military force a nation could raise and keep mobilized for years on end was critical in pursuing national objectives. When the maintenance and supply of large military formations are a permanent part of the environment, rather than a transitory situation,

pursuing economic efficiency in a comprehensive and quantifiable manner becomes a national security imperative.

The situational dynamics of the Cold War that motivated McNamara and his Whiz Kids were very Jominian, as were the solutions they attempted. While the international situation today is less foreboding for the United States, the relentlessly increasing budgetary restraints placed on the military drive DoD civilian leadership into a new set of quantitative cost-versus-benefit analyses for every aspect of the military establishment. Indeed, the budgetary pressures for economic rationalization over robust operational readiness are, if anything, more intense now than they were in McNamara's time. With no hostile totalitarian superpower menacing US interests, the arguments of those who make their policy recommendations based upon cold mathematics are harder to resist.

At the other end of the philosophical spectrum, the American officer corps are, in the aggregate, disciples of Clausewitz. As such, they view warfare as ultimately a human attribute, an art that can never be completely quantified in a mathematical equation. The firm political support of the nation, flowing through the iron will of the commander, energizes the force and cuts through the fog and friction of war. It is a philosophy that gives little credibility to those who would predict success or failure based upon the laws of physics or calculations of economic efficiency.

This is not a philosophical orientation that needs to be hedged or apologized for when articulated. How privatization affects the morale and self-confidence of the military is a profoundly germane issue, even if it is difficult to quantify. DoD members who believe their service has little intrinsic value and their quality of life—if not their very careers—hinges on the nonmilitary economic calculations of endless A-76 outsourcing competitions are unlikely to have the devotion to duty and willingness to sacrifice needed by a professional military with global responsibilities.

If support personnel, from flight surgeons to mechanics, are, in effect, told their services are needed only if they *cost out* at less than private sector equivalents, is it realistic to expect they will place *service before self* in assessing the loyalty they owe the Department of Defense? Is it ethical to criticize them for making year-by-year calculations of the value of continued military service based purely upon economic considerations, rather than patriotic loyalty, when they know their employer judges them solely with an economic yardstick? If senior military leaders do not raise these concerns in the debate over privatization, rest assured that no one else will.

Truly great leaders borrow freely from both Jomini and Clausewitz, melding social sophistication with dispassionate science. The American military operates best when there is a balance between these two schools. During the periods when either camp gains absolute ideological dominance, as happened with Secretary McNamara in the 1960s, the military becomes a less balanced and, ultimately, less effective force. This historical and cultural prism provides both the officer corps and the civilian political leadership the best focus for the unfolding debate on privatization. If the old adage that *war is too important to be left to the generals* holds a nugget of truth, it is also true that military privatization is too important to be left to civilian accountants.

Notes

1. "Outsourcing and Privatization," Defense Science Board Task Force, Office of the Under Secretary of Defense for Acquisition and Technology, August 1996, 7A.
2. *Ibid*.
3. For a comprehensive review of the length the Chinese Communist Party has gone to mask its embrace of capitalist policies or cloak them in Marxist jargon, see Cliff DuRand, "The Exhaustion of Developmental Socialism: Lessons from China," *Monthly Review*, December 1990, Vol. 42, No. 7, 8-19.
4. John Moore, "British Privatization—Taking Capitalism to the People," *Harvard Business Review*, January-February 1992, 115.
5. "The Thatcher Revolution," *The Economist*, 21 September 1996, 8.
6. *Ibid*.
7. *Ibid*.
8. "Escaping the Heavy Hand of the State," *The Economist*, 13 June 1992, 73-74.
9. *Ibid*.
10. *Ibid*.
11. "British Privatization—Taking Capitalism to the People," 115.
12. "Privatization in Britain: Making the Modern Dinosaur Extinct," *The Economist*, 23 February 1985, 76-78.
13. *Ibid*.
14. "Outsourcing and Privatization," 37A.
15. For a rendition of the arguments that the officer corps has become too openly partisan in favor of the Republican Party, see Andrew Bacevich and Richard H. Cohen, "Grand Army of the Republicans: Has the US Military Become a Partisan Force?" *New Republic*, 8 December 1997, 22-25.
16. William H. McNeill, *The Pursuit of Power: Technology, Armed Force and Society Since A.D., 1000*, Chicago: University of Chicago Press, 1982.
17. *Ibid*., 273.
18. Deborah Shapley, *Promise and Power, the Life and Times of Robert McNamara*, Boston: Little, Brown & Company, 1993, 236-237.
19. For a laudatory review of Robert McNamara, his drive and energy to excel, and the success of the systems analysis he utilized at the World Bank, see Louis Galambos and David Milobosky, "Organizing and Reorganizing the World Bank, 1946-1972: A Comparative Perspective," *Harvard College Business History Review*, Vol. 69, 22 June 1995, 156-229.
20. "Whiz Kids Rebound?" *The National Journal*, Vol. 21, No. 21, 11 November 1989, 2741.
21. *Ibid*., 2742.
22. *Ibid*., 2741.
23. G. E. Willis, "Top Doc Hands off Troubled System," *Army Times*, 9 September 1996, 4 (interview with retiring Army Surgeon General Alcide LaNoue).
24. Jeff Nesmith, "Complaints Haunt Pentagon's Health Care Repair; Where are the Savings? And Where is the Service? Doctors, Patients and Politicians Slam Program," *Atlanta Constitution*, 1 January 1998, 7A.

25. "Congress Told of Problems with Military's TRICARE Health Plan," Cox News Service, 1 May 1998.
26. "Defense Health Care," General Accounting Office, Report 98-80, 26 February 1998.
27. It is not just the uniformed military who draw this inference or question whether or not privatization really produces better services for personnel. Congressman Steve Buyer, chairman of the House National Security Committee, recently stated, "I find the DoD preoccupation with cost to be somewhat disingenuous. DoD witnesses have told us that TRICARE is saving billions of dollars in health care costs, yet apparently, none of those savings are available to provide greater access to health care for retirees." See statement of Chairman Steve Buyer, Federal Document Clearing House Congressional Testimony, 30 April 1998.

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No longer is the United States faced with national survival as was the case in 40-plus years of nuclear standoff with the Soviet Union. However, in many ways, the world is far more complex than during the years of the Cold War. The Cold War bipolar alliances have given way to a world where regional interests dominate. Today, terrorism and the threat of nuclear, biological, and chemical weapons proliferation—along with renewed national, ethnic, and religious rivalries—dominate the international scene.

As America seeks to reap the benefits of *winning the Cold War*, the nation is faced with tough decisions regarding how much defense is needed in the *new* world. Service force structures have been rapidly reduced and weapon system inventories drastically slashed. At the same time, people have exited the ranks of the military in increasing numbers.

> [The] DoD's [Department of Defense] force structure today is roughly 30 percent smaller than it was in the 1980s. Our budget has also declined to about 60 percent (in real terms) of its peak in 1985.[1]

These cuts, felt by all the Services, created imbalances that must be corrected. Among these imbalances is the disproportionate growth in the *tooth-to-tail* ratio since the end of the Cold War. The tooth-to-tail issue is considered such a major concern that Defense Secretary William Cohen established a commission chartered with the responsibility of finding ways to correct the problem. In this regard, the commission was charged with finding:

> . . . ways to save money in the defense *tail* portion of the budget . . . while shifting those savings to the *tooth*—warfighting segment. That ratio, nearly a 50-50 balance at the end of the Cold War, has moved so that nearly 70 percent of the defense budget now goes toward support elements.[2]

Future declining or flat-line budgets, coupled with the need to reduce the support/warfighter ratio, make changes in the support force structure and support concepts an absolute necessity.

Change, although inevitable because of budget considerations, will not be easy considering the many years of experience with largely organic support capabilities and the successes enjoyed with this approach. From the huge depot repair capabilities to base-level, organic support has been the primary means for meeting Air Force mission requirements. However, it has not always been this way. In fact, today's support:

> . . . activities were largely established and organized during the Cold War when [the] DoD had to depend predominately on organic support. Such support was driven by the possibility of an extended conflict with a rival superpower and a less sophisticated private, commercial infrastructure.[3]

To complicate budget and force structure imperatives, future wars are expected to be regional in nature with the US military expected to fight two simultaneous major regional conflicts. "These conflicts

COMPETITIVE

are often described as *come as you are* wars, meaning that there will be little lead time for mobilization or surge of production capability."[4] Additionally, today's US military plans for a more mobile and lethal battlefield. Technologically advanced weapons, combined with rapid mobility, will bring to bear overwhelming firepower on the enemy, creating a dramatic shock effect and producing short-duration conflict.

Today's realities—a changing international scene, budgetary difficulties, force structure imbalances, and new operational concepts—demand innovative solutions that will ensure warfighter support is not diminished.

Competitive Sourcing and Privatization (CS&P) (formerly Outsourcing and Privatization) is essential to meeting future support requirements. Interestingly, outsourcing and privatization are really not new concepts at all. Prior to World War II, the US military routinely relied upon the private sector for much of its support. Former Secretary of the Air Force Sheila Widnall commented:

> Lest you think this is a new phenomenon, let me take you back to the era before World War II when private support was standard. It was only during the Cold War when we realized the huge buildup of government operations that we came to think of government support as the norm. In a sense, we're going "back to the future."[5]

The Air Force must pursue CS&P using the savings for modernization and procurement to meet future needs. However, care must be exercised in making CS&P a reality, or it may undermine warfighting capabilities. A well thought-out and deliberate implementation strategy is crucial to success.

Converting from an in-house to a contractor-provided work force is a lengthy and complex process. Rules and regulations abound, making the process difficult to understand. To take full advantage of the benefits of outsourcing and privatization, there must be relief from many of the restrictions currently in place. Further, there must be acceptance and support at all levels of the Air Force for the initiatives involved under CS&P. Transitioning to a predominantly contractor-

SOURCING AND PRIVATIZATION
an essential USAF Strategy

Lieutenant Colonel Stephen E. Newbold

provided support force may seem a bitter pill to swallow, especially since the in-place organic work force has traditionally provided quality and responsive support to the needs of the warfighter. However, the existing fiscal demands and budgetary imperatives offer few alternatives. To understand the need, it is first important to understand the terminology in order to establish a level of common understanding.

Key Terms Defined

Only those functions considered commercial activities are eligible to be performed under contract. By definition, "A commercial activity is the process resulting in a product or service that is or could be obtained from a private source."[6] However, just because a particular function fits the commercial activities definition does not automatically make it a *contracting candidate*. There are several valid reasons to exempt an otherwise commercial activity from being performed by contract and, conversely, valid conditions to convert a government function to one that is contractor operated. Under CS&P, the government is allowed to perform an otherwise commercial activity when the function is considered a core capability. A core capability is defined as:

> . . . a commercial activity operated by a cadre of highly skilled employees, in a specialized technical or scientific development area, to ensure that a minimum capability is maintained. The core capability does not include the skills, functions or FTE [Full Time Equivalents] that may be retained in-house for reasons of national defense, including military mobilization, security, rotational necessity or to patient care or research and development activities.[7]

There are also some areas that are considered organic functions of the federal government that are exempt from CS&P initiatives. The term *inherently governmental activity* is applied to those areas in which performance by a commercial contractor does not serve the interests of the nation because of the nature of the work itself. It is "an activity that is so intimately related to the public interest as to mandate performance by federal employees."[8] Typically, functions fall in this category because of the government's responsibility to the taxpayers. A contracting function or a government audit function is a typical example of an area that is considered inherently governmental.

Outsourcing and Privatization Savings

The DoD's experience with outsourcing seems to confirm that savings are substantial when comparing organic to contract support.

> Cost comparisons conducted between 1978 and 1994 show savings of about $1.5B a year. The military departments and defense agencies that took advantage of outsourcing via competition have reduced their annual operating costs by about 31 percent.[9]

Similarly, within the Air Force, outsourcing has saved an estimated $500M a year according to Colonel Michael A. Collins, former Chief of the Air Force Outsourcing Office.[10] Further, the Defense Science Board Task Force on Outsourcing and Privatization estimated "savings of up to $7B to $12B annually by Fiscal Year 2002."[11] It is important to note, however, that both actual and projected savings are somewhat suspect according to the General Accounting Office (GAO). In testimony to Congress, the GAO noted that it has been unable to substantiate the savings claimed by the DoD for a variety of reasons. Among the reasons are generally poor cost-capturing procedures within the DoD and a noticeable trend in cost growth in established contracts.[12] Unlike private industry, the DoD is not a profit-making enterprise. As a result, managing costs has historically not been a strong suit for the defense establishment. As it tries to capture costs associated with a particular activity, the DoD's limited cost-managing experience makes the effort difficult and the results somewhat suspect. Similarly, the DoD's experience in writing service contracts has frequently resulted in contract modifications to the original contract, which routinely adds workload to the contract and increases costs. The cost savings claimed by the DoD under CS&P come exclusively from comparisons with initial contracts and not those that have been modified.[13] Recently, the GAO was tasked to review existing contracts to determine the actual cost growth.[14] In spite of the GAO claims of inconclusive cost savings, the available evidence as highlighted by the Defense Science Board and others makes a strong case for outsourcing and privatization.

One of the areas severely impacted during the defense drawdown has been procurement. Funding for procurement has fallen well below the levels needed to replace older weapon systems and ensure a technological advantage.

> Over the next five years, the military will have to nearly double its spending on weapons, pouring $67B a year into new planes, ships, and other weapons to replace those that are wearing out and to maintain technological superiority on the battlefield.[15]

"In terms of 1996 dollars, procurement has fallen from a peak of $126B in 1985, to just $39B in 1996—a reduction of 69 percent."[16] The savings to be generated by competitive sourcing and privatization offers one avenue to reduce procurement funding shortfalls.

The Process

The Office of Management and Budget Circular A-76, *Performance of Commercial Activities*, is the cornerstone document for CS&P guidance and is fundamental to cost comparisons between the government and the private sector. The A-76, appropriate federal and DoD acquisition regulations, and public laws provide the basis for undertaking the outsourcing decision. The first step in the

process is to identify potential candidates for outsourcing. Next, a performance work statement (PWS) is prepared. The PWS provides the foundation for the entire process.

> The PWS defines what is being requested, the performance standards and measures, and time frames required. It provides the technical performance standards and measures and time frames required. It provides the technical performance section of the Request for Proposals (RFP).[17]

Simply put, the PWS defines what work is to be done, the time lines for its completion, and the standards expected. The PWS should provide the preforming activity the flexibility to meet job requirements. This flexibility and a properly written contract will normally result in the contractor's identifying and employing improved efficiencies.

The Quality Assurance Surveillance Plan (QASP) is the government's oversight plan for the contract and is used to determine contractor performance. This plan "describes the methods of inspection to be used, the reports required, and the resources to be employed with estimated work-hours."[18] The QASP provides a *report card* on how well the contractor performs and provides the basis for payment incentives associated with the contract.

Since the essence of the A-76 process is to determine the most effective method—government or contractor—to perform the identified activity, the government must also prepare a bid for the work. The result of this process is the Management Plan.

> The Management Plan describes the government's Most Efficient Organization (MEO) and is the basis of the government's in-house cost estimate. The Management Plan, which must reflect the scope of the Performance Work Statement, should identify the organizational structures, staffing and operating procedures, equipment, transition and inspection plans necessary to ensure that the in-house activity is performed in an efficient and cost effective manner.[19]

The Management Plan provides the government with a cost basis for performance of the work and is essential to the competition process.

The solicitation process offers the opportunity for the private sector to bid for the work in competition with the government, with the PWS providing the basis for the work to be performed. The *Federal Acquisition Regulation* (FAR) provides explicit guidance on the solicitation process. For example, the FAR, Part 7 requires confidentiality of the government cost estimate until the most advantageous contractor proposal has been determined.[20] Solicitations must provide open and fair competition, resulting in the best overall value for the government. Once the solicitations have been received, the appointed source selection authority makes the final determination regarding whether to accept the in-house government bid or a bid from the private sector. There is also an appeals process to satisfy any complaints from prospective or unsuccessful bidders.

The Private Sector Experience

Taken together, outsourcing and privatization are viewed as a primary way of doing business in the private sector and are important ingredients for long-term corporate success. The competitive forces in the US economy drive businesses to look for the most cost-efficient and cost-effective means of delivering their products. As a result, the scope of outsourcing within the private sector has grown widely in recent years. For example, one estimate projected private industry spending $100B on outsourcing in 1996 with savings estimated between 10 to 15 percent.[21] There are a variety of ways in which cost savings are generated in the private sector. According to Defense Science Board findings, the savings can generally be described as coming from five main areas: (1) a lower cost and more flexible work force, (2) more efficient business practices enabling staff reductions, (3) more efficient utilization of facilities and equipment, (4) cost avoidance in infrastructure, and (5) smaller inventories.[22] In addition to the monetary savings and cost avoidance, there are additional reasons that motivate business to outsource.

Outsourcing allows corporations to focus on their *core activities*. This allows them to direct their energies toward those areas they consider fundamental in order to capitalize on competitive advantages. Functions necessary for conducting business—but not necessarily considered a core activity—are prime candidates for outsourcing. However, what is not considered a core function for one organization is—or at least should be—the core competency of the company seeking to obtain the contract work. It is important to note that no business, no matter how large or diverse, is able to organically provide all necessary resources to render final product delivery.[23] Specialization is a key to success. By specializing, a company can focus on fewer areas and, therefore, is able to identify and capitalize on opportunities.

"Specialization, whether of labor or capital, facilitates optimal use of inherent or acquired traits, saves time by focusing on a limited number of tasks, encourages job mastery, and spurs on innovation."[24] Large, diversified organizations simply cannot respond to the market demand as well as less diversified ones.[25]

Another outsourcing benefit is *improved service* to the customer. This is evident in the overall quality of the service provided, the responsiveness to the need, and the agility of the service provided.[26]

Outsourcing also enables companies to *gain access to technologies* that might not otherwise be available.[27] This benefit is closely related to the core activity advantage. Generally, large, complex organizations are far less capable of taking immediate advantage of technological advances, especially in noncore areas. For example, a company that relies heavily on computer support but is not in the computer hardware or software business itself may find it beneficial to outsource its computer-support needs.

Outsourcing can also be used to generate *operating capital* for the organization. By divesting itself of a particular noncore function, a company can liquidate assets.[28] Obviously, if there is no need to provide the support organically, there is no need to retain assets required to do the work. The funds from the sale of these assets become available for other purposes or to support core functions. Depending upon the function in question, this can amount to a large sum of money. The amount of capital generated generally corresponds to the function that is outsourced.

Establishing and Managing the Contract

Establishing a contract within the private sector is fairly straightforward. As a result, the private sector takes significantly less time, on average, to establish a contract than does the government. In fact, "outsourcing timelines in the private sector average about 15 months—less than half the DoD average."[29] The reasons for this situation relate primarily to the extensive bureaucratic process within the federal government. The private sector has fewer contracting restrictions than the government. It takes not only less time but also a significantly different view of contracting in general. Market forces and profit dominate the private sector view of contracting, and together they produce a different motivation. Within the private sector:

- Businesses increasingly raise their standards for qualified suppliers. This serves to restrict the pool of suppliers to the best available. Firms then deepen and broaden this relationship with these suppliers.
- Some companies experience fraud and abuse in their outsourcing activities. However, the private sector is learning to overlook such problems when elimination is not cost effective.
- Increasingly, private sector enterprises emphasize performance over cost, giving increased attention to subtleties of performance that may be difficult to justify objectively. Ultimately, this approach is far more cost effective, even if the products or services purchased are more costly.[30]

Private sector experience with outsourcing within the aircraft support industry offers a particularly good benchmark for the Air Force since many functions are similar. Outsourcing in this industry is now commonplace. In fact, 15 to 20 percent of all the required maintenance is now outsourced with the figure expected to grow.[31] Interestingly, there is a notably different approach to outsourcing when comparing the older, more established companies with the younger ones within the industry.

> Major airlines can be divided into two groups: younger airlines that have emerged after the late 1970s (the era of airline deregulation), which outsource virtually all of their depot-level maintenance, and the older, established airlines that maintain most of this workload in-house. All major carriers maintain an internal line (O-level) maintenance capability.[32]

The reason for the differing approaches is straightforward and primarily dependent on the infrastructure capabilities of older airlines developed over the years. Also, labor unions and corporate culture are important in the outsourcing decision. The established:

> . . . airlines have created an extensive maintenance infrastructure and have strong economic incentives to fully utilize these facilities. Union agreements often prohibit outsourcing of work that can be performed by company employees. In many airlines, the corporate culture also plays a role in discouraging full-scale outsourcing.[33]

Within the airline industry, companies typically look for a long-term relationship with a contractor. This not only provides stability but also produces a partnership-type approach to the business relationship. Five- to ten-year fixed-price contracts are the norm with the rates negotiated annually.[34] In the case of poor performance, contracts can be quickly terminated. Also, airlines have found a means to more directly tie compensation to performance based on the reliability of contractor provided components. Although this approach, known as *power-by-the-hour*, does not necessarily *fit* all aspects of airline aircraft maintenance, it does offer substantial advantages in some areas, and its use is becoming more common.

> Power-by-the-hour (PBTH) arrangements are growing in popularity. Under this approach, the airline contracts for performance, rather than a specific repair, and the vendor assumes material management responsibility for the item. PBTH provides airlines with greater maintenance cost stability and predictability, reduces inventories, and gives vendors strong incentives to improve reliability. PBTH arrangements are most prominent in engines, auxiliary power units, landing gear, and tires.[35]

Challenges for the Air Force

As the Air Force embraces CS&P on a much broader scale, it must overcome many challenges. First, the process needs streamlining. It simply takes far too long to outsource or privatize an activity. Furthermore, the more complex the function, the longer it generally takes to perform the assessment. The process requires single-function awards to be completed within 24 months and multifunction awards within 48 months. Studies exceeding these established time lines require justification as to why the delays occurred and must be submitted to the Office of Management and Budget.[36] Extensive legal considerations also significantly contribute to making the outsourcing process unwieldy. A macro review of the statutory provisions indicates they undermine the Services' abilities to outsource or at least place formidable roadblocks, thus making outsourcing difficult to accomplish. Table 1 highlights the restrictions and provides a summary of the key issues involved.

It certainly can be argued that most, if not all, of the legal provisions were put in place to safeguard the expenditure of public funds. However, in light of the current emphasis to implement improved business practices within government and to streamline government operations, change must be made. Collectively, the statutory provisions restrict the flexibility of the Services in making outsourcing decisions.

> The statutes . . . increase the involvement of Congress in outsourcing decisions and expand opportunities for Congressional micromanagement; require extensive Congressional notifications and reporting, including the preparation of exhaustive cost analysis studies; impose arbitrary limits on the share of depot-level maintenance workload that may be outsourced to private contractors; and establish arbitrary exemptions from outsourcing of selected functions such as fire safety and physical security. Moreover, the history of Congressional reaction to past DoD outsourcing initiatives has a *chilling effect* on DoD activities that are considering contracting out other workloads. Taken together, the current legal environment encourages the politicalization of the outsourcing decision process, and thereby complicates, delays and discourages DoD efforts to increase its reliance on private vendors for support services.[38]

Although statutory relief is certainly needed in many areas, there are several DoD in-house issues that must also be addressed. Support for CS&P initiatives within the Air Force may be difficult to obtain. Competitive sourcing and privatization, at both the conceptual level and implementation level, conflicts with the well-established Air Force cultural grain and represents a marked departure from the traditional way of doing business. Considering that defense employees are generally conservative and not prone to taking risks, contracting the workload will be difficult to accept.[39] Resistance to change, especially the magnitude expected with CS&P, is not unusual, no matter what the institution.

> Large, successful organizations typically institutionalize and thereby preserve the successful values and procedures that define the status quo. DoD is no exception. Where organic supply exists, DoD organizations will resist any large change, no matter how desirable.[40]

Citation	Summary	Citation	Summary
Title 10 US Code Section 2461	Mandates extensive reporting to Congress, including cost-comparison study prior to outsourcing.	Title 10 US Code Section 2469	Depot maintenance work >$3M may not be outsourced without public/private cost comparison.
Title 10 US Code Section 2464	Logistics requirements defined as *core* cannot be outsourced.	Sec 8020 Fiscal Year 96 Appropriations Act	Requires MEO analysis of all functions of >10 DoD civilian employees before outsourcing.
Title 10 US Code Section 2465	Prohibits outsourcing of civilian firefighting or security guard functions at military bases.	Sec 8043 Fiscal Year 96 Appropriation Act	No funds for A-76 studies which exceed 24 months for 1 function or 48 months for >1 function.
Title 10 US Code Section 2466	Limits outsourcing of depot maintenance to 40 percent of total.	Sec 317 Fiscal Year 87 Authorizations Act	Prohibits contracting any function at McAlester or Crane Army Ammunition Plants.

Table 1. Governing Directives[37]

Even more important is the concern that contractors will not provide needed support during contingencies or wartime operations.[41] No doubt readiness and wartime support are valid concerns; however, the Air Force does not plan to outsource areas that affect essential military skills or those functions that are inherently governmental. Essential military skills are those that:

- Directly contribute to combat or combat support.
- Must, by law, be filled by military members, such as firefighters and security guards.
- Are military by custom or tradition, such as bands or honor guards.
- Are needed to support overseas rotations.[42]

This is a reasonable approach; however, the restrictions prohibiting the outsourcing of firefighters and security guards need to be eliminated. In addition, there needs to be a clear delineation concerning what areas contribute directly to combat or combat support. On the surface, this may seem straightforward, but in reality, it is difficult to define. For example, the fighter pilot flying combat sorties directly contributes to combat. But what about the in-theater aircraft maintainers, transporters, and supply personnel? It is precisely this support personnel area where the definition becomes decidedly fuzzy. A reasonable approach is to retain organic support for all those areas required for mobility.

During contingencies and even during the open hostilities of war, contractor support has traditionally been essential for many key aspects of the US military. For example, contractors were employed extensively in the theater of operations during Desert Shield/Desert Storm and today provide key base support functions for several ongoing operations. While contract support during times of contingency has been common, the criteria for those areas where contract support is both feasible and practical must be further defined. Once this is done, the military needs to work with the contractors during peacetime to ensure uninterrupted support during actual contingencies.[43]

In spite of initiatives to change how the DoD deals with contractors, significant change is still required. Too often there is a general lack of trust on the part of the government as to how the contractor will perform the contract. In this regard, the "DoD often fosters adversarial relationships with contractors rather than the needed partnership."[44] One reason is the intrusive oversight the government maintains over contractors. This oversight is the result of a few bad experiences. The government's answer to fraud has typically been more bureaucratic oversight of the process, penalizing all when only a very small minority of contractors are involved.[45] This is not to say that fraud should be overlooked. As advocated by RAND:

> When individual incidents (fraud) occur, the response should not be to revisit the procurement regulations but to punish the perpetrator heavily enough to provide a deterrent for others in the future. That is, enforcement should focus on the isolated wrongdoers when they are caught and not on the activity of contracting as a whole.[46]

In addition, the Air Force needs to rethink how it structures the contracts. Performance-based contracts offer advantages to both the government and the contractor. By focusing on results rather than how the work is accomplished, the contractor is better able to find efficiencies, which result in cost savings for the government, while still providing the level of service desired. While there certainly must be restrictions governing how some critical tasks are performed, even in these areas, there are opportunities to improve efficiency.

The Air Force also needs to be more creative in how it provides incentives to the contractor. For example, the Air Force could make good use of the PBTH methodology mentioned earlier. This approach is particularly suited for current and potential aircraft maintenance contracts. PBTH does an excellent job in directly tying performance to compensation.

Conclusion

CS&P offers the Air Force potentially large savings that can be directed to critical procurement shortfalls. Clearly, there will have to be a culture change within the Air Force in order to overcome tremendous resistance to change. Just as clearly, CS&P initiatives must not compromise our warfighting capability. In this regard, identifying core functions that should not be outsourced or privatized is critically important and is an area that the Air Force has yet to fully address. Congressional support is needed for relief from arbitrary outsourcing restrictions as well as the excessive reporting and oversight requirements presently imposed. Finally, the Air Force must exercise care in how it pursues competitive sourcing and privatization. The Defense Science Board's recommendation is to contract as much as possible as quickly as possible, but this could lead to overall disaster. In commenting on this point RAND said:

> . . . the Commission implicitly promotes a rapid program of outsourcing that could lead to early failures. That is, if DoD pursues extensive expanded outsourcing without giving such factors adequate attention, it could fail to realize its expectations about performance and reduced costs. Such failures could discredit the notion of expanded outsourcing before such outsourcing has a chance to prove itself.[47]

A more measured approach based on a well-conceived strategy will better serve the long-term needs of the Air Force.

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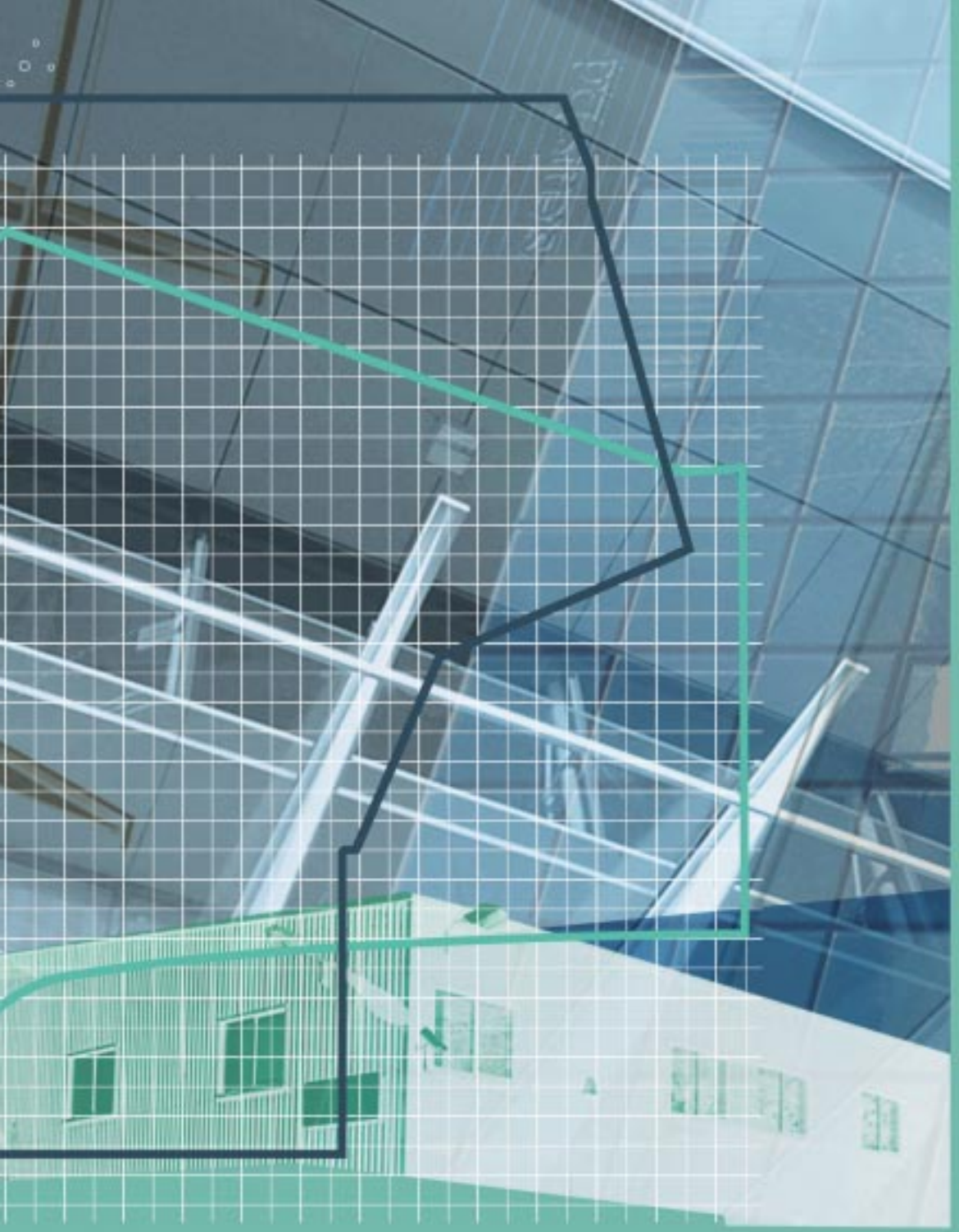
where is the Battle Line for supply contractors?

Major Susan A. Davidson

In total war it is quite impossible to draw any precise line between military and non-military problems.

—Winston Churchill

Once critical delivery of resupply items is made to the theater of operations, how does it get delivered to the user, and who makes that delivery—contracted agencies or the military? This is a question that must be accurately answered for success on the battlefield. As the military continues to downsize, more contracting is being done for critical support missions. In the Army, a major area in which contracting is used is the delivery and resupply of products and equipment to the users. More emphasis is placed on the ability to get support items delivered to the user within very limited time lines, as opposed to the units stockpiling items in case of need. This concept allows the unit to focus its assets where needed, lessening the



logistical support requirements. However, it requires what has become known as *just in time* logistics—a process through which support is provided as needed, allowing for no surplus and, more importantly, no shortfall. In theory, this system allows for adequate logistical support but does not necessitate stockpiling of supplies or repair parts. Contractors have stood up to this task in garrison very well, but until recently, there has been little guidance as to how far into theater a contractor will be able to deliver goods. The theater infrastructure will determine much of this, but where will the contractor stop, and how quickly can units depend on getting their critical supplies?

The need for augmentation from contractors will not vanish, but the dependability issues must be confirmed for their use to be warranted. The use of contracted agencies must be limited to the position on the battlefield where the current military supply distribution system originates—at the Theater Management Center (TMC).

Current Peacetime Supply Process

I don't know what the hell this logistics is that Marshall is always talking about, but I want some of it.

—Field Admiral E. J. King

Today, most Army forces and equipment have been withdrawn from forward locations, and the Army is now primarily a continental United States (CONUS)-based force with global responsibilities. The Army has demonstrated through recent force projection operations, such as Bosnia, that it is able to rapidly deploy forces anywhere on the globe. However, it also has been observed that the centralized management of distribution necessary for success within the theater is still a challenge. "Maintaining in-transit visibility and accountability of cargo and efficiently delivering it from ports to the customer with the *right stuff*, to the *right place* at the *right time* still proves to be challenging."[1]

The biggest challenge facing logisticians is keeping up with the force structure changes that are happening as the Army moves toward the *Army After Next* and into a digitized battlefield. The logistics system must move from a supply-based system to a distribution-based system allowing the technologies to progress. Maintaining accurate, effective, and efficient logistical support remains the logistician's highest goal.

There are three components that comprise the idea of distribution and distribution management: visibility, capacity, and control. All must have reliable, current, and accurate data to be of value to the combatant commander.[2]

Why is visibility so important? "Visibility is a positive indicator that the distribution pipeline is responsive to customer needs."[3] In fact, distribution managers dedicate most of their work to gaining and maintaining visibility of the various assets, processes, and capabilities throughout the distribution pipeline. Visibility is the most essential component of distribution management. History is full of examples that prove combatant commanders must be confident in the logistician's ability to sustain them.

Visibility is based on a continuum of logistics data from the sustainment base into and through the distribution processes of the distribution system (factory to foxhole). Visibility must begin at the point where materiel starts its movement to the theater of operations, be that a depot, commercial vendor, storage facility in another theater, or war reserve stockpile. The information must be digitized and subsequently entered into the necessary logistics information systems. The next critical element to visibility is the capability to dynamically update that source data regarding the transport, storage, maintenance, or supply status of that particular item/shipment until it is received at the ultimate consumer location. The information must be accessible to all users regardless of the Service or echelon of command requiring the data. Two of the systems available, Joint Total Asset Visibility (JTAV) and Army Total Asset Visibility (ATAV), provide common elements of information on most facets of distribution. The Global Transportation Network provides the transportation update and shipment information directly to Army users or via JTAV/ATAV queries.[4]

These systems allow for the visibility of items from the contractor to the requester; however, once the item is placed into the normal military distribution system, maintaining visibility becomes more difficult. This is primarily due to the level of communication and information systems available on the battlefield. As digitization of the battlefield becomes a reality, visibility issues will change accordingly. The total success of the distribution management system will be dependent upon the quality and interoperability of the logistical information and communication systems.

The second area is capacity—maximizing the logistical capacity of the theater, while not limiting the mobility of the combat commander. The integration of the full range of asset visibility information capabilities and the associated ability to control and allocate resources will permit logisticians to maximize critically limited logistics resources. The ability to anticipate logistics bottlenecks, disruptions, and changes in the distribution operational schema is a key factor in allowing the successful distribution manager to optimize the theater's distribution capacity.

Logisticians work continuously to be able to identify distribution based problems as they occur. While the Distribution Management Center (DMC) will continue to resolve the distribution management problems, the synergistic intent for this entity is to anticipate distribution needs; provide the necessary resources at the right time; monitor the logistics execution; and as necessary, adjust the distribution system to avoid distribution problems. As decision support tools are developed and introduced into the DMC, more sophisticated problems can be expected and addressed. Until such time, distribution managers must provide much of the fusion and perform the processes to synthesize information across functionally oriented stovepipe information systems.[5]

The third function is that of control and, more importantly, that of centralized control. The DMC must be the single focal point for distribution of logistics on the battlefield. The idea of distribution as a logistical function must be understood at all levels on the battlefield, and proper authority must be given to the DMC to control that distribution system.

The DMC can and must cut through the layers of functional commands and staff agencies to provide accurate and plausible solutions to developing situations that can throttle, disrupt, or stop the essential flow of materiel and units to critical locations on the battlefield. Traditional attitudes and procedures must be put aside for the overall efficiencies and effectiveness of the distribution process. Commanders cannot be permitted to optimize their situations at the cost of suboptimizing the capabilities of the overall distribution system.[6]

In order to understand the critical aspects of control of the distribution system, we must first look at the basic principles of distribution. Eight basic principles are examined and supported through current logistics systems in the Army.

1. **Centralized Management.** Centralizing management includes all aspects of the distribution system being controlled by a single organization. It must include total visibility and control of the entire distribution process from vendor to user. Under a distribution based logistics system (DBLS), designated distribution managers will establish, coordinate, and synchronize the distribution plan and logistics flow and maintain and use this information to resolve critical distribution issues for supported units. The organization assigned this task at the tactical level is the DMC. The DMC is tasked to translate the commander in chief's logistics guidance

and priorities into a workable theater distribution plan that is linked to the sustainment flow from CONUS. To be successful, this flow must be monitored through all agencies in the pipeline.

2. **Optimizing Infrastructure.** Optimizing infrastructure is dependent on the full spectrum of visibility and will allow distribution managers to reallocate/acquire physical and resource network capabilities necessary to meet the changing battlefield requirements. Battlefield contracting, forward-deployed logistics elements from CONUS or new ways of working with the host nation will be critical to realizing this principle in a DBLS.
3. **Velocity Over Mass.** At the heart of a DBLS is the principle of *velocity over mass*. This principle is improving the flow (speed and accuracy) of materiel, personnel, equipment, and information through the logistical requisition and supply process. This is accomplished in part by the velocity management (VM) program. VM seeks to help implement the change from mass to velocity by addressing some basic issues in distribution: reducing order and ship time and minimizing back orders, reducing repair cycle time, improving stockage determination procedures, and improving the accuracy and timeliness of accounting systems.[7]
4. **Reduced Response Time.** Reduced logistics response time (order and ship time) is the culminated effort of velocity over mass. The key is the right item or person to the right place at the right time and in the shortest amount of time.
5. **Minimizing Stockpiling.** This is necessary as the Army moves from a forward station to a rapid response force. The idea is dependent on the time-definite delivery of resources through the distribution system. It involves the ability to understand the minimum essential amounts of supplies required to initiate operations and the continuous flow of follow-on support and resources necessary to maintain operations once the theater matures.
6. **Maximizing Throughput.** This is a subelement of minimized stockpiling. Throughput distribution bypasses one or more echelons in the supply system to minimize handling and speed delivery forward. This is a key area where supply contractors will have a role on the battlefield of the future. Direct delivery to the user is done in garrison on a daily basis and must be integrated onto the battlefield.
7. **Time-definite Delivery.** Time-definite delivery is the process of delivering the materiel, equipment, and personnel to the combatant commander at the right time. This principle is key because it builds confidence in the supported unit that the logistics system can support operational requirements and eliminate the need (or perceived need) for the stockpiled stores of materiel that have characterized past logistics operations.[8]

8. **Continuous and Seamless Pipeline Flow**. The principle of continuous and seamless pipeline flow involves the application of all other distribution principles to produce the end-to-end continuum of a DBLS. The integrated combat service support (CSS)/command and control automation and communications networks of the distribution system provide the strategic, operational, and tactical connectivity that allows the distribution management structure the capability to maintain visibility of the flow. This is where the combination of visibility, capacity, and control must come together to enable the total success of the distribution based system.

Contractor's Role on the Battlefield

The key to success of the distribution system is to have items available to place into the distribution flow at very little or no notice. The Army's most recent operations—Just Cause, Desert Shield/Storm, Restore Hope—though highly successful, revealed shortcomings in the logistics system. The time needed to respond to orders placed from the theater was excessive. Partly because of these operations, a consensus among the Army leaders shows that significant improvement of logistics support is required. In the past, the Army has been able to rely on forward-deployed forces and prepositioning of resources. In the future, a smaller percentage of the force structure will be deployed overseas. The difficulty in predicting where the next operation will occur means less reliance on prepositioning. This means a much greater portion of logistics support will have to come from CONUS.

The current, needing-to-be-changed, logistics system amasses *days of supply* of various commodities in an effort to buffer the system's long resupply times and highly variable peacetime and contingency performance. Part of the reason for this is that the Army's current logistics processes were designed in a period when materiel was relatively cheap and transportation relatively expensive. Now, however, the costs of acquiring major weapon system components have sharply increased, while the costs of transporting materiel have sharply decreased. As a result, old assumptions no longer apply. Policies regarding when it is cost-effective to hold rather than move materiel or when to use premium transportation need to be reexamined. For example, in 1990, the Army Materiel Command had nearly $60B in inventory above the unit level. Yet, with that entire inventory, too many operational commanders did not have the stocks at the right place and time. Now tight budgets do not permit the buildup of massive inventories. Velocity will have to replace mass.[9]

Responsiveness (the ability to quickly and accurately meet the needs of mission commanders) will be the key to the future logistics system. The customers are the field commanders who have continuously required a logistical support system that is reliable, flexible, and responsive. They are also concerned that this system must meet the budget constraints and maximize effectiveness. Therefore, logisticians need to analyze current processes and design an improved logistics system that will answer all the customers' needs.

In their private lives, people are accustomed to customer-focused services to meet their needs and those of their families. They order clothing or software from a catalog and get efficient, rapid, and accurate delivery. They go to an auto parts store and are either promptly supplied a part or have it ordered for delivery within 1 to 3 days. Army commanders want the logistics system to offer comparable service at comparable costs. The velocity management initiatives are intended to meet this reasonable expectation.

It will be up to the logisticians in the process to change the culture of the Army, allowing change from today's logistics system to the future one. If the Army logistics system continues to do business in the same way, it will continue to get the same results. This is beyond doing more with less or making the best of what is currently available. The Army logistics community must understand and accept the change that improves the responsiveness and efficiency of the Army logistics system. Managers and supervisors at all levels must lead this change. Velocity management is an initiative that examines the current process and identifies areas where improvements can be made.

The critical first step in implementing velocity management is to clearly define the process that needs to be improved. Setting goals requires careful analysis of the base-line performance. Accuracy and integrity of base-line performance measurements are critical to the establishment of future performance goals.[10]

Today, in the contracting system, supply clerks have the ability to go directly to the vendor to get supplies that are not in the military system. This is done in several ways. One way is for the unit supply clerk to use a credit card (International Merchant Purchase Authorization Card) given to the unit with a pre-authorized spending level. This is a financial management tool as well as a logistical initiative. It allows contractors (vendors) to interact on a one-to-one basis with the supply clerks and the individual units. Goods are ordered and delivered via the commercial system, bypassing the military system completely. In the CONUS, contractors routinely arrive at the unit's site with the desired goods, offering the best customer relations available. This may not be possible in zones of combat.

Battlefield Logistics

The more I see of war, the more I realize how it all depends on administration and transportation. It takes little skill or imagination to see where you would like your army to be and when; it takes much knowledge and hard work to know where you can place your forces and whether you can maintain them there. A real knowledge of supply and movement factors must be the basis of every leader's plan; only then can he know how and when to take risks with those factors, and battles are won only by taking risks.

—General A.C.P. Wavell

Throughout military history, vital strategic decisions that led to victory or defeat have been influenced by important logistics consideration of how to feed, move, and sustain the troops.[11] The recognition of the importance of these decisions has led to more research in the distribution management aspects of logistics.

Distribution management encompasses the organization, doctrine, policy, and training required to implement a distribution based system. Most challenging perhaps is not the basic implementation of each component piece but the integration between levels so that the system is truly seamless. Distribution management is a fully integral part of the battlefield distribution concept. Effective distribution management will synchronize and optimize the various subelements of the distribution equation: movement control, nodal operations, materiel management, supply support, and associated technology.

The DMC is the focal point for controlling the continuity of the CSS pipeline through situational awareness resulting from total asset visibility. This awareness permits control encompassing the distribution of materiel, equipment, personnel, and soldier support items. The control provided by the DMC integrates the various distribution functions into a more efficient distribution system. It integrates the totality of strategic, operational, and tactical logistics capabilities to provide reliable, effective, and efficient distribution within the theater of operation.

As command and control elements and their associated support relationship change on the battlefield, the logistics community must keep abreast of these changes. Maintaining these relationships ensures the entire spectrum of the supply system can package and ship materiel directly to units in the theater. This information allows the DMC, control centers, and other elements of support operations to maintain visibility and control of the distribution system. The ability of distribution activities to hold, divert, and redirect unit equipment, personnel, supplies and services, and other support to their ultimate delivery

sites depends on distribution managers and commanders knowing who is supporting whom and where they are on the battlefield.

World-class logistics defines agility as "the competency that sustains world-class performance over time . . . and is built upon three key capabilities: relevancy, accommodation, and flexibility."

The Council of Logistics Management describes relevancy as "the ability to maintain focus on the changing needs of customers." Advocates of change within the DoD are calling for an agile infrastructure precisely because future peacetime and wartime scenarios must be affordable and will require the ability to change quickly in response to technology and threats.[12]

The second capability, accommodation, is described as "the ability to respond to unique customer requests." In the Department of Defense, this is called *support tailoring*, a concept endorsed by *Joint Vision 2010*. Many observers believe industry provides tailored solutions better than do rigid military services and DoD agencies.[13]

The final capability, flexibility, is described as the *ability to adapt to unexpected circumstances.* Flexibility has been a long-standing requirement of DoD logistics concepts. Warfighters covet the logistics capability to encounter; resolve; and when appropriate, exploit the unexpected emergency or opportunity. Flexibility also is a virtue in mobilization. In industry, flexibility can provide reserve production or distribution power. In the Department of Defense, flexibility can provide reserve striking power, which is the essence of mobilization.[14]

Reasons for outsourcing range from cutting costs, time, or resources to gaining access to resources not available internally or increasing research databases. It is important to recognize that each of these reasons, to varying degrees, are attractive areas to review in the Army's attempt to restructure the logistical infrastructure. These coincide with the reasons why the Department of Defense is emphasizing competitive sourcing strategies. Similarly, it is interesting to note that most of these reasons help organizations become leaner, more robust, and thereby more agile. The pursuit of agility through competitive sourcing solutions seems to be a common objective of industry and government alike.[15]

But exactly how do competitive sourcing strategies contribute to more agile organizations and processes? The following advantages of competitive sourcing are particularly relevant to DoD pursuit of a more agile infrastructure. Competitive sourcing will:

- Give the DoD access to a broader range of sources for support and surge capability.
- Speed incentives for internal reengineering (improving processes). For example, the Air Force has been influenced by the leading-edge practices of commercial airlines.
- Reengineer vertically integrated organizations that have grown obsolete, making enterprises smaller, more focused, and more fluid.
- Provide for speedy capture of innovations, which allows technology to be leveraged quickly.
- Gain access to resources or expertise not available internally.
- Permit contracting flexibility for things the government cannot do.
- Allow development of integrated supplier concepts, such as those several commercial airlines are adopting (for example, British Airways and Southwest Airlines).
- Allow lower inventory levels, nimble transportation, and reduced cycle times.[16]

There is no doubt that a partnership is necessary between the government and industry in times of mobilization. History shows few, if any, examples of where the military has been successful without this partnership. However, because it does require total commitment from both agencies, the Army is not ready to abdicate infrastructure management. In the historical context, the private sector had a huge role in assembling, producing, and projecting the elements of infrastructure; however, none of those scenarios involved the degree of private-sector performance, management, and control of defense infrastructure elements being espoused today. Military buyers of infrastructure services should be cautious about relying on contractors, particularly where real-time control is critical. Outsourcing and privatization imply the formation of strategic relationships with external suppliers that will lead to some loss of military control over essential functions. The fog and friction typical of war caution us that losing control could be instrumental to losing the war.[17]

Still, there is little doubt that the military must increase its reliance on private-sector providers, particularly to support small- to medium-scale deployments associated with our current geopolitical objectives. Today, many of its infrastructure activities consist of support functions that are not directly related to core military competencies. These functions claim an unaffordable 60 percent of the DoD budget. Yet cost reduction is not the most important reason to use private sector providers of infrastructure services—performance improvement is. Industry has bypassed the military in most areas of logistics support capabilities: responsiveness, innovation expertise, surge, and agility.[18]

> Unfortunately, much energy still is being expended across the military services and DoD agencies (and in Congress) to preserve and protect organic assets that are not essential to defense missions. A better use of this energy would be integrating DoD's and industry's core competencies. Long-term integration of contract suppliers and military buyers will yield the infrastructure agility highly prized during peace, mobilization, and combat.[9]

Future Operations

Commercial practices are being examined by the logistics community to determine where they can be integrated into the military system. The practices identified as the best practices are the key area of emphasis.

Integrated supply chain management, industry's changing view of logistics, electronic commerce, automated identification technology, direct vendor delivery, load optimization, outsourcing, and smart simple design are all examples of the best commercial practices that could be very useful in helping the Army achieve the RML.[20]

Integrated supply chain management includes the highest levels of suppliers down through the system to the ultimate single customer. Currently, this is being done throughout industry through integrated software systems available at a high initial cost to the industry but recognized as offering future cost savings by tailoring the system to maximize effectiveness.

Electronic commerce is the practice of using the Internet and other electronic technologies and applications to affect the logistics of the system. "Electronic commerce and the sharing of information among entities and organizations facilitates vendor-managed inventories, paperless contracting, collaborative forecasting, and workflow management."[21] All these aspects, when put into the military context, will greatly enhance the effectiveness of the logistics system and contribute to battlefield success.

Automated identification technology is simply the technology that allows for the identification of an item of supply through an automated database. The military currently uses it during deployment as major end items are identified with labels read by a scanner that places the item into a database. This allows load plans of deployment vessels to be quickly assembled and the receiving port to know what is expected to arrive. The commercial industry has taken this one step further and has been able to identify the smallest item and track that item as it transits the logistical system—another benefit the military can use to achieve the total asset visibility required in future operations.

Direct vendor delivery is the direct delivery of items from vendor to customer. This allows the system to bypass needless handling thereby decreasing the order receipt time. This is also the area where additional research must be done to delineate between the garrison environment and the battlefield.

Load optimization is a software program that plans and optimizes loads for trucks and containers. This ensures full use of the capacity available for delivery to the requester. Ensuring the maximum amount of supplies are loaded on each truck designated for a specific user allows for less traffic on a particular route, thus maximizing the transportation network.

As discussed earlier, outsourcing is done for lower costs, streamlined labor force, access to top personnel and cutting-edge technologies. By becoming partners with other organizations, a company or the military can increase its service levels and limit response time while maximizing cost effectiveness.

"Smart simple design can be achieved by designing equipment with fewer, standardized parts, at reduced cost, with higher quality, faster manufacture and assembly cycle times, and better serviceability."[22] Decreasing the number of supply items in the inventory, either by combining like type items or by designing new multifunctional items, lessens the workload of the supply system. This, in turn, increases the efficiency of that system.

Additional work in research and development is continuously being done to improve and streamline the logistical system. The Army must partner with world-class logistics providers when beneficial and become a world-class provider itself by leveraging the best industry has to offer. The challenge is to decide where and when to pursue each of these industry-proven strategies.[23]

Conclusions

The only way success will be identified in future logistical operations is through the maximizing of all assets available to the need at hand. The Army logisticians must embrace all innovations that will maximize the efficiency of the logistical pipeline. The digitization of the battlefield demands the logistics system mature accordingly. Looking to the private sector for better ways to accomplish integration of this digitization is not a bad approach. In fact, using the private sector is an approach that must be taken aggressively but must at all times be tempered with the realization that the Army's primary mission is to fight and win America's wars. Contractors are not trained in combat, and consideration must be given to this fact as items are outsourced through the system.

Contractor support has always played a role on the battlefield and will do so in the future. The concern is finding the right mix of contractor involvement and force structure to support the logistical system. In the case of supply distribution, determination of where on the battlefield the vendor-to-user delivery must stop is critical. With total asset visibility and velocity management initiatives moving forward successfully, the need for this determination is perhaps being ignored.

"Support is a command authority."[24] As such, the integration of nonmilitary sources into the system must be approached cautiously. The supported commander retains the priority of support and is the focus of attention to the Theater Distribution Center when sending supplies into the battlefield. If direct vendor activity is allowed to continue on the battlefield, the TMC, a key to

maintaining control of the logistics of the theater, will be bypassed, and there will be a loss of control of distribution management. Although initiatives must continue to lessen the pipeline through which supplies flow, the stop point of that distribution must be identified for times of conflict. Additionally, logistics units in support of the forward combat elements must understand that procedures will be different on the battlefield.

The RML will happen in response to the design of the *Army After Next* and in peacetime will become the most effective logistics system possible. The initiatives identified in this article will help this come to fruition and must be aggressively pursued. It will take total understanding of all the issues at hand to ensure this RML does not preclude controlled support on the battlefield.

Notes

1. Distribution Management Center, Tactics, Techniques and Procedures, September 1998.
2. *Ibid.*
3. *Ibid.*
4. *Ibid.*
5. *Ibid.*
6. Combined Logistics Officer Advanced Course, Sub-course on Distribution Management, 1997.
7. Velocity Management Training Support Plan, CASCOM, January 1996.
8. *Ibid.*
9. Velocity Management Concept Briefing Fact Sheet, CASCOM 1995.
10. *Ibid.*
11. *Army Logistician*, PB700-98-6, Vol. 30, Issue 6, September-October 1998.
12. *Army Logistician*, PB700-99-1, Vol. 31, Issue 1, January-February 1999.
13. *Ibid.*
14. *Ibid.*
15. *Ibid.*
16. *Ibid.*
17. *Ibid.*
18. *Ibid.*, 63-64.
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24. Joint Pub 3-0, II-8.

a joint logistics and engineering contract

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The Army, Air Force, and Navy currently manage their own separate engineering and logistics contracts for employing civilian contractors as a force multiplier during military operations. These contracts are commonly referred to as *civil augmentation* contracts. Civil augmentation contracts afford the Services flexibility when limited by the availability of force structure during contingency scenarios. Active duty forces are often constrained by real-world requirements or taskings that limit their use, such as response capability to a major regional conflict. At the same time, activation of Reserve and Guard forces to fulfill needed manpower requirements, in certain scenarios, may be politically sensitive. There are also instances when the United States would like to stay engaged in nation building or peacekeeping operations within a country but needs to maintain a low military presence because of political considerations. Other factors that lead to the use of an augmentation contract are the lack of in-place host nation support agreements in numerous underdeveloped countries and troop ceiling restrictions imposed by those host nation countries.[1]

A General Accounting Office (GAO) report on contingency operations, however, questioned the validity of each military Service executing its own separate contract and stated that the services provided under the separate contracts were very similar in nature. The report implied that it may be more *effective and efficient* if one Service acted as the lead executive agent to eliminate duplication of services. The GAO report also noted that existing military doctrine was vague in addressing how to properly integrate these contractor resources with the military force structure during contingency situations.[2]

Joint Publication 4-0 (JP 4-0), *Doctrine for Logistic Support of Joint Operations*, is the primary document providing combatant commanders and military planners with guidance for conducting logistics support during joint operations. This document outlines the responsibilities for logistics operations to include supply, maintenance, transportation, facilities engineering, health services, command and control, and several other areas. JP 4-0, however, does not address the fact that civilian contractors are being increasingly tasked to provide the aforementioned services for military operations.

The deployed military commander must consider a whole new list of issues when using civilian contractors to include contractor security, status of forces agreement (SOFA) and clearance restrictions, and contractor and military force integration. Unfortunately, existing joint doctrine does not provide guidance or address when and how civil augmentation contracts should be used in support of military operations during wartime and small-scale contingencies.

This article addresses two very important questions raised in the GAO report regarding the use of contractors in support of joint military operations. First, will a *joint* engineering and logistics service contract provide the combatant and Service commanders any benefit over maintaining individual Navy, Army, and Air Force civil service augmentation contracts? Second, does current joint doctrine adequately address the use of contractor services in support of contingency and wartime operations? If not, what information should be included in future joint doctrine?

The Argument

The development of a Joint Civilian Augmentation Program (JCAP) contract will prevent individual Service program redundancies, while eliminating possible competition among the Services and providing efficiencies in the areas of personnel resources and program costs. As stated in the GAO report, unnecessary duplication of effort and functions may have occurred as a result of employing individual Army, Air Force, and Navy contracts to provide engineering and logistics support in combined forces scenarios.[3] However, while some duplication may exist among individual Service contracts, the Army's Logistics Civilian Augmentation Program (LOGCAP) and the Air Force's Contract Augmentation Program (AFCAP) provide numerous benefits to their individual Service components. The intent of JCAP is to build upon this foundation with a shift in focus to the ultimate customer, the warfighting commander in chief (CINC).

It will also be shown that current joint doctrine inadequately addresses the numerous issues regarding employment of contractors n the battlefield. This research effort will provide the issues and doctrinal guidance to be addressed in JP 4-0 and the *Joint Task Force (JTF) Commander's Handbook for Peace Operations*. Issues such as contractor security, host nation restrictions, and deployment issues have to be provided to the CINC planners and deployed commanders for effective employment of contractor operations during military operations.

Due to the limited scope of the Navy's Construction Capabilities Contract Program (CONCAP), it will not be analyzed in depth. The Navy contract is for emergency construction and engineering services only and does not include additional support in areas such as services and logistics. The majority of Service-related and contract-specific issues will be sufficiently addressed in this paper through the analysis of the AFCAP and LOGCAP contracts.

Analysis of LOGCAP

LOGCAP was developed based on the Army's experience during the Vietnam War. During Vietnam, the Army was forced to rely on civilian contractors because its Reserve and Guard forces were never activated. In 1992, the Army awarded its first centrally managed LOGCAP contract through the US Army Corps of Engineers (USACE) to Brown and Root Services Corporation. The Cost Plus Award Fee (CPAF) contract was awarded for 1 basic and 4 option years. Under this contract, the Army has supported six contingency operations, beginning with Operation Restore Hope in Somalia, and is currently still supporting Operation Joint Endeavor in Bosnia. Total estimated contract value to date is $1B.[4] In 1997, the Army Materiel Command (AMC) awarded the LOGCAP follow-on contract to DynCorp Aerospace Technology. This contract is also a CPAF contract with 1 basic and 4 option years but contains fixed-price line items for planning efforts.

A team consisting of a program manager and approximately 15 persons manages the program. The team has two directorates responsible for planning and business management. The planning directorate works with each Army major command (MACOM) and has incorporated the use of LOGCAP into various operations plans (OPLAN) and concept plans (CONPLAN). The Communications Electronics Command (CECOM) at Fort Monmouth, New Jersey provides contracting support for LOGCAP. The Defense Contract Management District–International (DCMD-I) provides contract administration services during contractor operations.

Services Provided

Per the statement of work (SOW), "The objective of LOGCAP is to preplan for the use of commercial contractors to prepare plans and execute approved plans to provide logistics services and construction/engineering support with reasonable assurance of success and within reasonable cost."[5] Under the planning effort, the contractor maintains three types of permanent management plans: the Worldwide Management and Staffing Plan (WMSP), the Generic Undeveloped and Developed Country Management Plan, and the Regional Management Plan (RMP). Additionally, the LOGCAP contract requires DynCorp to develop, at the request of the procuring contracting officer (PCO), the CINC/MACOM-specific requirements support plans. These plans are based upon specific CINC/MACOM requirements, which are generated in support of specific OPLANs, CONPLANs, and functional plans. In conducting this effort, the contractor works with the staffs of the supported Army MACOM to develop, maintain, and refine LOGCAP planning documents.[6] The cost for the management staff, which includes the worldwide plan, is $865K per year. The yearly cost to maintain the regional plans is $30K.[7]

Support provided by the LOGCAP contractor during wartime or contingency operations can be broken down into five areas: supply operations, field services, engineering and construction, maintenance, and transportation.

Requesting LOGCAP

The Army uses a matrix to decide whether to use LOGCAP to support wartime or contingency operations. After the decision is made to use the LOGCAP contract, the theater Army service component commander forwards the request to the Department of the Army for a final decision. If approved, the request is then passed on to the LOGCAP project manager at AMC. The LOGCAP management staff will generate a SOW for the contractor in conjunction with the theater staff. The PCO generates a delivery order for the services once funding is received from the theater command. The procuring contracting officer also delegates contract administration to DCMD-I and USACE. The LOGCAP management staff deploys to the area of responsibility (AOR) to assist in planning and managing the contract. The LOGCAP management team consists of a program manager, a CECOM/PCO, contractor representatives, a USACE representative for technical advice, DCMD-I personnel to perform contract administration and quality assurance evaluation (QAE) duties, a LOGCAP support unit, and a logistics support element.

The team falls under the operational and administrative control of the theater logistics support element commander.[8] To assist potential users, the LOGCAP Program Management Office has developed the LOGCAP Battlebook and AMC Pamphlet 700-30 as user's guides to assist customers in understanding the capabilities of LOGCAP.

Benefits of LOGCAP

Force Multiplier

LOGCAP is a force multiplier and provides the Army numerous benefits. First, preplanning of contractor efforts, similar to deliberate planning directed by the Joint Strategic Capabilities Plan (JSCP), lays the groundwork for quick and smooth execution during military operations. As in Vietnam, much of the Army's combat support (CS) and combat service support (CSS), especially its construction capability, is maintained in its Reserve component. Deployment of Reserve forces, however, requires presidential activation, time to mobilize, and military strategic lift. LOGCAP can fill this force structure gap by mobilizing immediately upon PCO notification. In accordance with the contract, DynCorp has to be ready to deploy in 72 hours, with initial support within 15 days of the onset of operations and full capability within 30 days of the onset. The LOGCAP contractor also provides its own strategic and in-theater lift capability. LOGCAP is not dependent on the Department of Defense (DoD) logistics system; therefore, it can source materiel independently and lessen the Army's burden on the logistics system. It also provides the CINC with a suitable work around when military force caps are in place. Contractor augmentation lessens the military *tooth-to-tail* ratio and enables available troops to concentrate on mission critical tasks.

Cost Control

The LOGCAP contract's award fee ranges from 0 to 5 percent for above average performance with no base fee. Contractor performance is rewarded in the areas of delivery, quality of performance, and cost. Learning from Bosnia, the LOGCAP management staff (Army program managers and contractor personnel) has also improved its costreporting procedures and benefited from the oversight provided by the DCMD-I Contingency Contract Administration Services (CCAS) teams who perform contract monitoring. Another potential benefit of LOGCAP, according to one recent report by the Logistics Management Institute, "when compared with the costs of using an equivalent military force, the use of LOGCAP contractors is economical."[9] The report stated that the LOGCAP contractor employed 24 percent fewer persons than an equivalent military force package for operations conducted in Bosnia. Using the equivalent military force package, the report also compared marginal costs and found the contractor to be 28 percent less expensive.[10] Since the Army MACOM's do not budget for funding LOGCAP, there is an initial *sticker shock* felt by both the MACOMs and the deploying commanders as they try to control costs from their operation and maintenance funds. Overall, LOGCAP provides the Army an effective and efficient capability to augment deployed military forces.

Other Benefits

In addition to their capability-related benefits, the LOGCAP contract provides some side benefits within the host country. The LOGCAP contractor benefits the local economy since they hire personnel from the local work force and subcontracts to local vendors. In Operation Joint Endeavor in Bosnia, 80 percent of the contractor's work force was local foreign nationals.[11] Use of the LOGCAP contractor also allows for a reduced US military presence in the country of operations and minimizes the local reaction to these forces. The trade-off, however, is force protection.

Considerations When Using LOGCAP

Security in a Hostile Environment

The LOGCAP contractor is self sufficient in his operations to support US forces; however, the CINC employing LOGCAP support has an obligation to provide security for the contractor. The level of security depends on the degree of hostility in the area of operations, regardless of whether it is during wartime or small-scale contingency operations. Security precautions may include providing military escorts for line haul operations, requiring the contractor and his nonhost nation employees to live on and conduct operations from military compounds, and arming contractor employees with small arms. The importance of providing contractor force protection was illustrated during Desert Storm. After receiving chemical attack warnings, contractor personnel providing food service at several Air Force installations walked off the job. The personnel returned to the installations only after receiving appropriate protective equipment.[12] In addition to providing security for the contractor, deployed commanders must weigh the risks associated with providing nonmilitary personnel access to military installations. Contract personnel, especially host nation personnel, are potential security risks as they may act as sympathizers for both real and potential adversaries.[13]

SOFA and Omnibus Agreements

The gaining CINC must also ensure that SOFA and omnibus agreements include provisions concerning the LOGCAP contractor and his employees. For instance, in Operation Joint Endeavor, Hungary would not allow the contractor to bring employees in country since it was not part of the omnibus agreement. The Hungarian government, however, was eventually persuaded to allow these employees access after it received assurances that a large portion of Brown and Root's work force would include Hungarians.[14] The Hungary Ministry of Finance also imposed a value added tax on Brown and Root and an income tax on its employees. The US Government ended up reimbursing Brown and Root for the $18M in costs

since the LOGCAP contract is a cost reimbursable contract.[15] The US Government was later able to amend the omnibus agreement with Hungary and recoup the money.[16]

Cultural Issues

The LOGCAP contractor's hiring of foreign nationals can create communications and cultural challenges. For instance, Saudi truck drivers providing line haul services after Desert Storm routinely cooked meals on small propane stoves near their vehicles. This practice was alarming to Army ordnance personnel, especially when the cargo being hauled was high-explosive ordnance.[17]

Significant Lessons Learned

Operation Joint Endeavor in Bosnia pointed out some key lessons. First, this operation showed that LOGCAP *is not always an initial entry capability* because the contractor requires time to set up operations. However, it illustrated that the LOGCAP contractor "is well suited to take over base camp maintenance and operations after initial base camp construction."[18] Due to the large number of troops already deployed in theater, the harsh Balkan winter, and the decision to build more and smaller camps, a unique challenge was created in Bosnia for the Air Force Rapid Engineer Deployable Heavy Operational Repair Squadron Engineer (RED HORSE) troops, Navy Seabees, and Brown and Root. However, their joint effort created a synergy that contributed to a greater success than any one Service's engineers could accomplish and allowed them to meet the challenge.[19]

Although the contractor has an organic strategic lift capability, it may be subject to the same logistical constraints as the military. Several factors can result in degradation of the contractor's ability to bring equipment and supplies into theater such as crowded lines of communication, an austere operating environment, and a theater with damaged infrastructure or limited economy. For example, in Bosnia, Brown and Root rail and truck shipping competed against the needs of the very troops they were there to support. Contractor aircraft also competed with military aircraft for available ramp space. [20]

JP 4-0 provides guidance to the geographic combatant commander and recommends the establishment of the Joint Civil-Military Engineering Board (JCMEB), Joint Facilities Utilization Board (JFUB), and the CINC Logistic Procurement Board (CLPSB).[21] These boards are to be used to establish theater policy, procedures, direction, and priorities and provide coordination for construction and engineering, facilities, and contracting activities. The development of the Joint Acquisition Review Board (JARB) and the Joint Contracting Committees in Operation Joint Endeavor and their resulting success proved the merit of the JP 4-0 guidance. Their establishment was critical for elimination of competition among the different contracting activities for local resources, consolidating requirements, and overall control and management of the acquisition system. A JARB located in Hungary, Croatia, and Bosnia reviewed requirements and established priorities. The requirements, after being funded, were then passed to the Joint Contracting Committee, which determined whether host nation support, local purchase through the Central Region or Joint Contracting Centers, or LOGCAP would be used to fulfill the requirement.[22]

Operation Joint Endeavor showed the need for LOGCAP program management representation on the CINC planning and management staffs as well as the staffs of the deployed commanders in Bosnia, Croatia, and Hungary in order to provide an understanding of the scope/capabilities of the contract. Establishment of the JARB eventually helped eliminate misconceptions on the performance of Brown and Root.[23] Appointing base camp *mayors* as focal points for the contractor also improved the relationship between the contractor and customer. Communication between the two parties improved, and the contractor gained a clearer understanding of what it deemed always-changing requirements.[24]

Analysis of AFCAP

AFCAP is a contingency support contract that the Air Force developed to relieve or augment military operations in small-scale contingencies. Primary areas of support include logistics, services, engineering, and operations and maintenance. The contract supports all phases of military operations to include planning, mobilization, construction, sustainment, reconstitution, and restoration. In supporting small-scale contingencies, the AFCAP contract can also provide relief support for natural disasters world wide. Since the AFCAP contract was awarded in 1997, it has only been used for two large-scale taskings—Andersen typhoon relief at Andersen AFB in Guam and Hurricane George relief at Keesler AFB, Mississippi.

The AFCAP contract was awarded to Readiness Management Support (RMS) as a joint venture between Johnson Controls and Lockheed Martin for a period of 1 year with 4 option years. The contract is CPAF with a fixed-price line item for worldwide manpower backfill at military bases. AFCAP has the capacity to handle up to $452.6M in task orders over the life of the contract.[25] The basic annual contract costs cover contractor program management, development and maintenance of a Worldwide Management Plan (WMP), and two annual validation exercises. These basic contract costs are funded by the Air Force Civil Engineer. Individual task orders are funded by the requesting Air Force major command (MAJCOM) or using agency.[26]

The contract is managed by a dedicated management team of two full-time program managers assigned to Headquarters Air Force Civil Engineer Support Agency (AFCESA) and two full-time contracting officers assigned to the 325th Contracting Squadron, both located at Tyndall AFB. In addition, either the Air Force MAJCOM or DCMD-I would provide onsite surveillance.[27] The Air Force has also

developed an AFCAP user's guide outlining the responsibilities of AFCESA, contracting, DCMD-I, and the user.

Sustainment Versus Beddown

The genesis for the development of AFCAP began with the request of Brigadier General John Allen, the Air Combat Command Civil Engineer, at the 1994 Air Force Civil Engineer Worldwide Conference. General Allen saw a clear need for a worldwide sustainment contract to relieve military troops from performing nontraining related repetitive tasks.[28] Although the AFCAP contract can accomplish beddown taskings, its focus is sustainment activities. Beddown taskings provide excellent training for military forces, such as Prime Base Engineer Emergency Force (Prime BEEF) and RED HORSE, which provide the Air Force organic beddown capabilities. Examples of beddown taskings include tent setup and utilities installation. As illustrated by the successful support Air Force organic forces provided US forces in Bosnia, the Air Force needs to maintain a responsive in-house beddown capability. AFCAP is primarily a relief or augmentation tool for prolonged sustainment activities.

Responsiveness

The AFCAP contractors notional time line for deployment is not tied to the initiation of conflict. Since the Air Force employs Prime BEEF and RED HORSE for initial beddown activities, Air Force MAJCOM leaders determine the appropriate time to transition to the AFCAP contractor work force. Although the contract requires RMS to typically respond within 30 days, the contractor responded immediately during his first two deployments.

Worldwide Management Plans

In contrast to the numerous LOGCAP plans, the Air Force has required its AFCAP contractor to develop and maintain only one generic WMP, at a cost of approximately $300K, which it feels can be quickly tailored or adapted to meet the specific needs of any crisis world wide. The AFCAP plan is tested or validated twice each year during a tabletop exercise with the contractor. RMS is required to adapt its WMP to the specific scenario and provide an overall plan within 24 hours. According to the AFCESA program management and contracting staff, the worldwide management plan is very flexible and affords the Air Force great versatility at a tremendous cost savings. Since the plan is *not* country, region, or type of contingency specific, it is less likely to become outdated than a detailed, site-specific plan. Due to the uncertainty of where the next crisis will arise, AFCESA personnel feel that a generic plan will provide an adequate foundation from which to build a scenario-specific management plan.

Benefits of AFCAP

Tailored for Air Force Needs

The AFCAP contract was developed by AFCESA to support Air Force customer requirements world wide. The contract was specifically tailored to meet ongoing Air Force needs. As a result, the program managers have a functional understanding of Air Force operations, culture, procedures, and regulations. This higher level of familiarity with Air Force customer needs translates into increased responsiveness and efficiency on the part of the AFCESA staff.

Cost Control

The primary contractual incentive for contractor performance under the AFCAP contract is the award fee. "The award fee provides motivation for excellence in such areas as quality, timeliness, technical ingenuity, and cost- effective management."[29] The AFCAP award fee is capped at 6 percent and is composed of 40 percent for cost control, 35 percent for technical performance, and 25 percent for management. Award fee amounts are determined every 6 months by the Award Fee Board, and the approved award percentage is applied to all active task orders for that period.

Force Multiplier

Used as a force multiplier, the AFCAP contract can alleviate several manpower, equipment, and training issues associated with sustained small-scale contingencies. There has been a substantial increase in the number of sustained contingency deployments that Air Force personnel have supported over the last decade. As a result, home bases world wide have endured prolonged losses of both manpower and equipment in support of these operations. This has resulted in higher operating tempos at most home bases and affected the level of base support provided by many functions. Within civil engineering, for example, the loss of manpower can negatively affect a squadron's ability to sustain the same level of facility maintenance and repair on an installation. Although augmentation of home base manpower is not a primary role of the AFCAP contract, it has the ability to backfill manpower positions at home bases both within and outside the continental United States (CONUS). The contract can also provide supplies and equipment alleviating the depletion of critical war reserve materiel (WRM) stockpile levels. RMS is generally expected to provide transportation of both personnel and equipment to the deployed location. The Air Force may choose to provide organic airlift for RMS in order to save cost; however, the Air Force maintains the flexibility of not having to provide those lift assets.

Limitations of AFCAP

Nonhostile Work Environment

The AFCAP contract *cannot be employed* in hostile environments. Under the Air Force program, the AFCAP contract can only be employed in response to natural

disaster crises or small-scale contingencies that are considered *nonhostile*. If hostile activities reemerge, both RMS and AFCESA would determine the appropriate time to disengage contractor forces.[30] Regardless of the situation, the US Government is responsible for perimeter defense in both hostile and nonhostile environments. By restricting contractor forces from hostile environments, the Air Force limits its exposure to numerous safety, security, and legal issues.

Other Limitations

The AFCAP contract cannot be used for the purchase of supplies. RMS is restricted to buying supplies in support of its own operations. Air Force-deployed forces depend on contingency contracting officers to provide local purchase support of supplies and services. Additionally, onsite military commanders often feel a loss of flexibility or responsiveness when functions are contracted out. They have less control over the contract employee actions and cannot arbitrarily assign tasks as could be done with military forces. As discussed in the LOGCAP section, the AFCAP contractor may also be limited by SOFA and omnibus agreements and the problems associated with hiring foreign nationals.

Significant AFCAP Lessons Learned

AFCAP was used in December 1997 in support of the typhoon that hit Andersen AFB on Guam and in the fall of 1998 in support of Hurricane George that hit Keesler AFB, Mississippi. As a result of those experiences, two key lessons were learned. First, funding streams need to be addressed. The MAJCOMs provide the funding for AFCAP use, yet they do not budget for this use. This leads to *sticker shock* when contingency costs are provided, even though AFCAP is often cheaper when a life-cycle cost comparison is done with WRM assets. Second, commanders at the deployed location must be educated immediately about the capabilities and limitations of AFCAP. As a result of these natural disaster experiences, the AFCESA project manager now provides training upon contract initiation to prevent unrealistic staff expectations and facilitate smooth contract execution.[31]

Joint Contract Analysis

After reviewing both contracts, it is apparent the LOGCAP and AFCAP contracts are very similar in scope. The differences are due to the Army's broader need for services provided because of its reliance on the Guard and Reserve to provide CS and CSS and the Air Force's need for a sustainment force to relieve its troops and equipment from the high operating tempo that has been experienced since the end of the Cold War. Since the scope of the two contracts is similar, it would seem possible to develop a Joint Civil Augmentation Program (JCAP) contract to meet the needs of both Services. A joint contract eliminates duplication of services and streamlines management oversight.

Requirements

The first step in developing a JCAP contract is to establish the requirements needed by both Services. Army requirements would obviously mirror the requirements in the LOGCAP SOW: (1) preplanning to include maintenance and updates of the WMSP, Generic Underdeveloped and Developed Country Management Plans, andthe nine RMPs and (2) CS and CSS augmentation capability broken down in the categories of supply operations, field services, engineering and construction, and maintenance and transportation. Air Force requirements would mirror requirements in the AFCAP SOW and would focus on the functions performed by Civil Engineering Prime BEEF teams and the Services' Prime Readiness in Base Services (Prime RIBS) teams. The only Air Force-unique requirements to be added to the Army requirements would be the home base backfill shop support and airfield support, which includes airfield unique facilities, utilities, runways/taxiways/parking ramps, aircraft arresting systems, lighting, markings, and emergency power. Construction standards, as is currently the case in both the AFCAP and LOGCAP SOWs, would be based on JP 4-04.

Contract Type

The JCAP contract would be a task order, indefinite-quantity contract. Per *Federal Acquisition Regulation* (FAR) 16.504 (b), a task order, indefinite-quantity contract is appropriate for acquiring services "when the Government cannot predetermine, above a specified minimum, the precise quantities of services that will be required during the contract period, and it is inadvisable for the Government to commit itself for more than a minimum quantity."[32] Against this basic contract, task orders can be written specifying the services required from the SOW to meet the needs of the requestor. Task orders would be CPAF except for the preplanning requirements and the backfill shop requirements. It is necessary for the government to shoulder the burden of contract risk to the many unknowns that may occur in each contingency. The LOGCAP deployment to Bosnia is an excellent example of the government's shouldering the burden of risk. Various campsites were built on soil requiring more preparation than anticipated due to the harsh and wet Bosnian winter. The contractor also competed with the military for local sources of supply, especially for geo-textile and gravel, which drove materiel prices up and/or required the contractor to ship or airfreight the materiel from the United States. Also, the shortage of available trucking and rail service into theater further compounded the problem of bringing supplies to the area of responsibility. The JCAP contract would remain cost plus award fee except for the firm fixed-price line items for planning efforts and backfill shop support. Furthermore, CPAF is appropriate per FAR 16.405-2(b) because:

(1) It is neither feasible nor effective to devise predetermined objective incentive targets applicable to cost, technical performance or schedule; (2) The likelihood of meeting acquisition objectives will be enhanced by using a contract that effectively motivates the contractor toward exceptional performance and provides the Government with the flexibility to evaluate both actual performance and the conditions under which it was achieved; and (3) Any additional administrative effort and cost required to monitor and evaluate performance are justified by the expected benefits.[33]

The contract must be able to meet the Principles of Logistics from JP 4-0. The CPAF-type task order is especially supportive of two of the principles: responsiveness and economy. Per JP 4-0, "Responsiveness is the right support in the right place at the right time. Among the logistic principles, it is the keystone; all else becomes irrelevant if the logistic system cannot support the concept of operations of the supported commander." It also defines economy as "the provision of support at the least cost."[34] Taking into account these two principles in the environment in which support is being provided, the selection of CPAF makes it perfect.

Guidelines for Use

Contingency need, as opposed to contractor capability, should be the deciding factor for contract employment. The Air Force intends to use its organic forces for initial response to any contingency and then use civil augmentation as a replacement for these forces. The Air Force allows the MAJCOM responsible for providing support to decide whether or not to use the AFCAP contract. If the Air Force MAJCOM decides to use AFCAP, the contractor typically has 30 days to respond. The Army has established decision criteria to determine when to use LOGCAP (based upon LOGCAP being used as a last resort). Therefore, if military capability and host nation support are bypassed, the Army needs the contract to provide the in-scope support requested. "Army practice has been to make the force self-sustaining for the first 30 days in a contingency theater with the troops living under field conditions."[35] These troops depend on contingency contracting officers for initial entry support. For JCAP contract employment, the standard for full-up response should be 30 days from deployment of the first forces. The contractor should be notified of any required work at the onset of a military deployment. Until joint doctrine is developed, the Services should retain decision authority on whether or not to use the contract. The Air Force, however, needs to follow the Army's lead and develop decision criteria on when to use a civil augmentation contract.

The JCAP contract must be able to be employed in hostile environments to meet Army needs. Restricting contractor operations to only operations other than war (OOTW) runs the risk of restricting the contract use for only humanitarian and disaster relief operations. LOGCAP operations in Bosnia, Somalia, and Haiti have proven OOTW can be as dangerous as war for the contractor. Instead of limiting contractor operations to nonhostile environments, the contractor and his employees must be provided a secure environment in which to work. This can be accomplished by carefully locating contractor operations to minimize risk and using military forces to protect the contractor. Army Regulation 700-137 specifies that each contract should set operational boundaries for contractor personnel. "Normally, contractor personnel will not be used forward of the brigade support area."[36] Therefore, deliberate planning should task military forces to provide contractor security in a hostile environment. Security provided by military forces should be a special provision in the contract. The contractor can be deployed during wartime contingencies only after the work area has been secured.

When the decision is made to use JCAP, it is essential that a team familiar with the contract deploy. The team is necessary to provide the JTF staff and base commanders an understanding of JCAP's capabilities and how best to integrate JCAP into the force structure. This team should consist of a program manager, contracting officer, engineering technical representative, and a contract administration representative from DCMD-I. The interface and training provided by this team would augment the peacetime coordination that occurs on a regular basis with the CINC's logistics staff. The team should also insist on the creation of a JCMEB, JFUB, and CLPSB, as explained in the JP 4-0, to prevent duplication of effort and requirements.

Training

Proper training of personnel is essential for JCAP success. The engineering technical representatives, administrative contracting officers, and quality assurance evaluators need to be trained prior to deployment since their first experience with the contract will likely be during an actual deployment. The Defense Contract Management Command (DCMC), in support of its CCAS deployment teams, has developed an excellent three-phase program to prepare its members for deployment. The training provides CCAS teams, composed of military and DoD civilian members, essential skills for general mission readiness, specific mission information, and identified AOR training. Just prior to deployment, DCMC provides the team with the most current mission-specific information/conditions and conducts a final deployment review.[37] It would also be beneficial if the requesting customers in the AOR were trained prior to contract initiation. For prolonged operations such as Bosnia, rotating personnel should receive the training prior to deployment.

Benefits

The benefits of a JCAP contract are quite obvious. JCAP adheres to the principles of unity of command and unity of effort. One contractor coordinates the entire base operating support for the joint task force. The contractor has the capability to concentrate resources where needed and develop a common standard of support throughout the theater. A JCAP contract allows the JTF commander to meet his

logistics responsibilities of "effective execution of approved operations plans, the effectiveness and economy of operation, and the prevention or elimination of unnecessary duplication of facilities and overlapping of functions among the Service component commands."[38] Improved efficiency of operations should result since one contractor controls the entire operation.

One issue, not researched, impacting unity of effort is: who should provide funding for the contract? Should the Air Force and Army still be required to provide the funding to support their individual, Service-specific operations? The Services will want to use their own Service doctrine to determine how to employ the contractor if they provide the funding. To support the unity of effort, the funding stream for JCAP should flow from the supported combatant commander. Further investigation is required to develop a smooth process for providing the unified CINC the budget to fund contractor operations at the onset of a contingency.

Limitations

A JCAP contract would be subject to many of the same limitations LOGCAP and AFCAP identified: requirement for a secure work environment; contractor inclusion in SOFAs; work-force dependability, especially in hostile environments; and constrained lines of supply in an austere theater. Additionally, due to the bureaucracy inherent in any jointly managed contract, the JCAP management team will need to maintain a strong focus on responsiveness to customer needs. Ultimately, JCAP must be responsive to the individual commanders in the field in order to support effective and efficient theater operations. Award fee criteria must always grade contractors on their ability to satisfy the needs of each field commander and the troops. The program management staff should be composed of joint Service representatives and be cognizant of the various needs of the deployed commanders and their respective Service doctrines. Finally, joint doctrine addressing contractor operations in the battlefield has to be developed to ensure consistency in operations and expectations from theater to theater.

Evaluation of Joint Doctrine

Over the past decade, the military has continued to rely upon contractor resources as a force multiplier in military operations. However, there is limited information in joint doctrinal publications regarding the use of civilian augmentation service contracts and the interface between contractor and military personnel during contingency operations. As a result, each Service has determined its own policy for the employment of civilian augmentation programs and developed its own contracts. In essence, the suppliers (Air Force and Army) are making the rules instead of the customers (CINC, MAJCOM, or deployed commander). The Army, out of necessity, has led the way in formally establishing its own civilian augmentation doctrine.

In a 1998 white paper, the Army Training and Doctrine Command (TRADOC) took the first crucial step in identifying numerous issues, such as security and deployment of contractors, that affect the employment of contractor support on the battlefield.[39] The Army is currently developing a field manual (FM 100-10-XX, *Contracting Support to the Battlefield*) that will address these doctrinal issues from the Army's perspective. However, it is imperative that resources such as the Army white paper are consolidated and the issues refined into a new or revised joint Service publication.

Executive Agency

The GAO report highlighted that the services provided under the LOGCAP, AFCAP, and CONCAP contracts were similar in nature and that it may be more *effective and efficient* if one Service acted as the lead executive agent during contingency operations. Current joint doctrine in JP 4-0, however, clearly states that each Service is responsible for providing logistics support to its own forces. The combatant commander through the combatant command has directive authority for logistics (establish theater priorities and review theater requirements). The combatant commander can also determine that one Service should be the lead agent in providing in-theater logistics support. In Operation Joint Endeavor, "European Command designated US Army Contracting Command-Europe as executive agent for all US contracting in theater."[40] This occurs, however, only in limited situations when it would be beneficial to the theater of operations. Also, a theater-by-theater lead executive agent would not eliminate the duplication of services highlighted in the GAO report. The Secretary of Defense could delegate lead executive agent authority to the Service with the preponderance of forces in theater—most likely the Army.

However, delegating executive authority to one Service creates the potential that the program will only be responsive to one Service's needs. In 1995, the Air Force and the Navy both used LOGCAP for support in Aviano, Italy. However, Air Force and Navy emphasis on responsiveness led to the development of their respective programs. To overcome the executive agency problem, a joint program office similar to the Joint Strike Fighter Program should be created. One Service would fill the program director position, while the Service acquisition executive responsibilities would be provided by another Service. This organizational setup would be an interim step until joint doctrine for civilian augmentation support is established and JCAP matures past infancy.

Integration

Joint doctrine, in both JP 4-0 and the *JTF Commander's Handbook for Peace Operations*, should establish how contractor-provided logistics support should be integrated into unified CINC planning and the execution of military operations. Currently, the Army has identified three scenarios in which LOGCAP may be employed: first, at initial entry prior to arrival of main task force; second, at initial

entry with a task force; or third, as a sustainment force.[41] However, as learned in Operation Joint Endeavor, LOGCAP does not necessarily excel in initial entry capability, especially when it does not have the appropriate time to set up operations. Greater synergy is realized through the combined efforts of the Air Force RED HORSE, Navy Seabees, and LOGCAP contractor. Also, because of contractor safety concerns and the inherent strength of the Air Force RED HORSE and Prime BEEF programs, the Air Force only employs AFCAP in nonhostile small-scale contingencies. This should not change in the future as the Air Force has no intention of decreasing its reliance on active duty RED HORSE and Prime BEEF forces to meet beddown requirements. CINC planners need to be aware of both contractor and Service capabilities and plan accordingly.

Joint doctrine should address the limitations of civil augmentation contractor responsiveness. Normally, the contractor has 30 days to fully mobilize; therefore, the military must provide alternative means for troop support until the contractor is fully mobilized. Joint doctrine should also establish parameters to determine when it is appropriate to use civil augmentation contracts similar to the Army's decision criteria for using LOGCAP. Adapting the JARB process for use in deliberate planning would provide an excellent forum for the application of the decision criteria. More important, combatant commanders and their planning staffs need to be involved in developing doctrine for contractor operations in the joint environment. Since US Joint Forces Command (USJFCOM, formerly US Atlantic Command) is charged with the responsibility of integration for joint operations, it would be logical for it to champion this action. Once joint doctrine is established, the JCAP program should transition from the joint program office to the control of USJFCOM because it is responsible for the preponderance of CONUS-based forces.

Security

Protection of contractor personnel on the battlefield is an important issue. "The government's responsibility for providing force protection derives from three factors: a legal responsibility to provide a safe workplace, a contractual responsibility which is stipulated in most contracts, and third, to enable the contractors to continue doing their job."[42] Army guidance recommends against employment of contractors in instances where the risk to contractor personnel is high or extremely high, as defined by Field Manual 100-14. The level of protection provided is situation dependent.[43] For example, during LOGCAP operations in Somalia, Haiti, and Bosnia, the contractor was continually traveling between base camps to provide required services. In Somalia, a military escort was usually required because of the dangerous environment. However, in the Bosnia AOR, the contractor logged nearly 1 million miles a month without dedicated escort by maintaining good threat awareness and traveling with military convoys when possible.[44] Security, therefore, will be an ongoing concern of military planners and deployed commanders. Doctrine in JP 4-0 and the *JTF Commander's Handbook for Peace Operations* should define the maximum security risk for deployment of contractors. It should require planners to address contractor force protection, explain the security risks of deploying contractors as noncombatants to the AOR, and outline how to mitigate these risks.

SOFA, Clearance, and Host Nation Restrictions

The legal status of contractor employees engaged in military operations varies depending on several factors, to include the nature of the military operation (humanitarian support versus hostile conflict) and current agreements or restrictions with the host nation. "Contractors are not automatically covered under SOFAs and may be required to comply with local laws."[46] Planning considerations must take into account the local political environment. Agreements need to be established to enable the contractor to operate with the same freedom as military personnel. "Laws and SOFAs always take precedence over contract provisions;"[47] therefore, it is necessary to address their impact on the contractor's ability to meet the requirements of the SOW. Currently, the Army's requesting MACOM, located in theater, and LOGCAP management team work these issues. Similarly, the Air Force MAJCOM requiring AFCAP support is responsible for working these types of issues with the State Department and JTF commander. The Air Force relies on the local US Embassy to make sure all agreements are coordinated at the appropriate level in the host nation to ensure broad support. The contractor's use of subcontractors with worldwide contacts also helps alleviate the problem of contractor personnel entering a foreign country. The *JTF Commander's Handbook for Peace Operations* should include additional SOFA guidance on contractor operations and personnel. Annex D to JP 4-0 (logistics checklist for OPLANs) should also address this issue.

Contractor and Military Force Integration

When developing the requirements for the SOW, planners should address the level at which contract employees and contractor operations will be integrated with the military forces. In a contingency situation, contract employees can be issued firearms and battle dress uniforms (BDUs) for personal protection and also be billeted in the same compounds as military forces. However, contract employees cannot be forced to comply with general orders regarding issues such as alcohol consumption unless specifically stated in their contract. Commanders only have administrative authority over these employees. The types of actions military commanders are authorized to take against contractor employees who violate commander policies are restricted to withdrawing exchange privileges, withholding medical care, or denying entrance to the military camp. Employment termination is the contractor's responsibility, but contract provisions can specify removal conditions for employee misconduct. Contractor employees, however, do become subject to the *Uniform Code of Military Justice* during war.[48] Military commanders must weigh the benefits of colocation, to include security and impact on morale, against the cost associated with maintaining a separate contractor compound.

Planners must also address where the contractor should conduct his operations. "The planner should be concerned with the cost, physical protection requirements, and coordination of the contractor's requirements with the military requirements. This last factor is often overlooked. In an area where facilities are limited, contractors may be competing with the military for facilities."[49] The JCMEB, JFUB, and JARB are excellent forums for making appropriate command decisions and should be established in theater.

Under AFCAP, the Air Force generally colocates the contractor on the military compound to ensure security and facilitate better communication with the contractor's management staff. When billeted in the same compound, the contractor's personnel have to abide by the same *general orders* as military personnel. The contractor's award fee can be reduced if its personnel fail to support the onsite commander's directives.

Noncombatant Status

If the contractor's employees can carry firearms, wear BDUs, and live and operate among military forces, a natural question is: are they still considered noncombatants? The answer is yes. The *Law of Armed Conflict* defines combatants generally as "1) commanded by a person with responsibility; 2) wear a fixed distinctive sign such as a uniform; 3) carry arms openly; and 4) conduct operations in accordance with the Law of War."[50] The general legal interpretation of this definition limits combatants to the members of armed forces. All others are considered noncombatants and include such individuals as prisoners of war, wounded or sick personnel, chaplains, medics, and civilians. Being noncombatants in the AOR, contractor employees are generally not subject to direct, international attack, but their presence also does not hinder attack on legitimate military targets. Although they can protect themselves, they are not allowed to violently resist capture.[51] The third and fourth Geneva Conventions establish a difference between the treatment of prisoners of war and civilians in time of war. Persons who are not recognized officially as combatants and "who commit hostile acts about or behind enemy lines are not treated as prisoners of war and may be tried and sentenced to execution or imprisonment."[52] The risks for the contractor's employees are, therefore, much greater in a hostile situation. Contractors do not want to participate in a manner in which they could endanger their perceived status as noncombatants. For example, Brown and Root and DynCorp resist having employees wear BDUs. Planners and commanders who determine contractor scope of work need to be aware of the risks to the contractor.

Recommendations for Improvement

Joint doctrine regarding the employment of contractor support in contingency and wartime scenarios should be immediately developed. It should be based upon the lessons learned in major contingency operations (for example, Operation Joint Endeavor in Bosnia, Operation Uphold Democracy in Haiti, and Operation Restore Hope in Somalia), the initial products generated by TRADOC, and all other documents that provide useful guidance on this issue. Joint doctrine for combatant commanders and their planners should address contractor operations in the areas of predeployment planning, development of employment decision criteria, contractor/military force integration, security, force protection, and SOFA considerations.

Conclusion and Summary

Based on the issues raised in the GAO report on contingency operations, this article addressed two important questions regarding the use of contractors in support of military operations. First, will a joint engineering and logistics service contract provide the combatant and Service commanders any benefit over maintaining individual Army, Air Force, and Navy service augmentation contracts? Second, does current joint doctrine adequately address the use of contractor services in support of wartime and smaller scale contingency operations? If not, what information should be included in future joint doctrine?

This research effort provided an objective review of the benefits and limitations of the Army LOGCAP and Air Force AFCAP contracts. It was determined that both the Army and Air Force developed excellent civilian augmentation programs that are responsive and tailored to each Service's individual needs. Additionally, several LOGCAP and AFCAP lessons learned have been documented for future employment of contractors on the battlefield.

The research analysis determined, however, that the LOGCAP and AFCAP programs are very similar in scope, as was postulated in the GAO report. Each contract provides the same basic support activities to DoD customer's world wide while duplicating engineering and contracting management oversight. Therefore, it is our recommendation that a JCAP contract be established that will meet the needs of both Services while eliminating their duplication of effort. A joint contract would provide unity of effort in meeting JTF commander logistics responsibilities with an end result of improved efficiency of operations. A JCAP is the next logical step in the evolution of civilian augmentation programs, as it would focus directly on the needs of the combatant commanders.

Again building upon the analysis of LOGCAP and AFCAP, it has been shown that current joint doctrine inadequately addresses the numerous issues regarding employment of contractors in the battlefield. JP 4-0, in particular, needs added guidance on contractor provided support during wartime and small-scale contingencies. Guidance on issues such as when and how to use civilian augmentation contracts, security, host nation restrictions, and contractor— military integration have to be provided to planners and commanders for effective employment of contractor operations during military operations.

Without question, civilian augmentation programs are proven force multipliers. Over the past decade, civilian contractors have been increasingly tasked to provide both engineering and logistics support to military forces in contingency scenarios.

It is crucial that joint doctrine first be developed to guide military commanders in the employment of contractors on the battlefield. Ultimately, a JCAP should be developed to improve the effectiveness and efficiency of government/contractor support.

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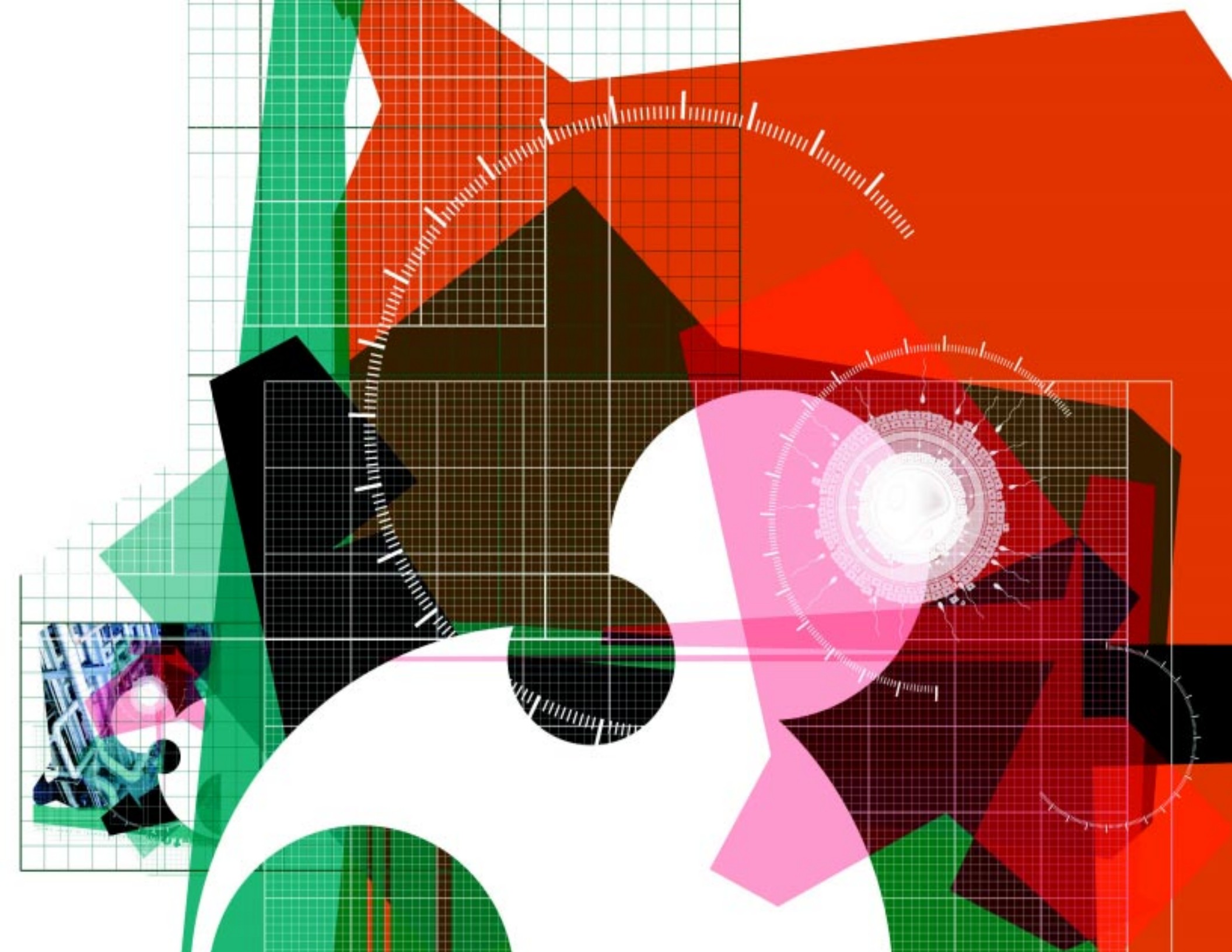

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From its inception, the Air Force Logistics Management Agencty has grown to be recognized for its excellence—excellence in providing answers to the toughest logistics problems. And that's our focus today—tackling and solving the toughest logistics problems and questions facing the Air Force. It's also our focus for the future.

Lots of organizations have catchy mottoes. Likewise, many have catchy vision statements. We do, too. But there's a big difference—we deliver on what we promise. *Generating Solutions Today, Shaping Tomorrow's Logistics* aren't just words to us; they're our organizational culture. We use a broad range of functional, analytical, and scientific expertise to produce innovative solutions to problem and design new or improved concepts, methods, systems, and policies that improve peacetime readiness and build war-winning logistics capabilities. Delivering on what we promise makes us the study and analysis agency of choice for command and staff organizations throughout the Air Force.

Our key strength is our people. They're all handpicked professionals from logistics functions, operational analysis sections, and computer programming shops. Virtually all of them have advanced degrees, some of which are doctorates. But more important, practically all of them have recent field experience. *They've been there and done that*. They have the kind of experience that lets us blend innovation and new technology with real-world common sense and moxie. It's also the kind of training and experience you won't find with our competitors. Our special blend of problem-solving capabilities is available to every logistician in the Air Force.

Air Force Logistics Management Agency